

225



ANNUAL REPORT

Federation of Malaya 1949



LONDON: HIS MAJESTY'S STATIONERY OFFICE

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The cover illustration shows Malay children watching a mobile cinema show.

A Malayan Police Jungle Squad goes into action.



ANNUAL REPORT
ON THE
FEDERATION OF MALAYA
1949

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LONDON : HIS MAJESTY'S STATIONERY OFFICE
1950

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CONTENTS.

PART I.


CHAPTER.	PAGE.
I.—POPULATION	1
II.—OCCUPATIONS, WAGES, LABOUR ORGANISATION, TRADE UNIONS, CO-OPERATIVE SOCIETIES	8
III.—PUBLIC FINANCE	30
IV.—CURRENCY AND BANKING	35
V.—COMMERCE	39
VI.—PRODUCTION	56
VII.—SOCIAL SERVICES—	
Section 1—Education	84
Section 2—Health	103
Section 3—Housing Conditions and Programmes	118
Section 4—Social Welfare	121
Section 5—Government Information Services, Film Unit, Broadcasting	124
VIII.—LEGISLATION	129
IX.—JUSTICE	133
X.—POLICE	137
XI.—PUBLIC UTILITIES	146
XII.—COMMUNICATIONS	158

PART II.

I.—GEOGRAPHY AND CLIMATE	177
II.—HISTORY	179
III.—THE ADMINISTRATIVE ORGANISATION OF GOVERNMENT INCLUDING THE SYSTEM OF LOCAL GOVERNMENT	194
IV.—WEIGHTS AND MEASURES	195
V.—NEWSPAPERS AND PERIODICALS	196
VI.—BIBLIOGRAPHY	197

APPENDIX.

THE EMERGENCY	203
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THE HIGH COMMISSIONER FOR THE FEDERATION OF MALAYA.

Sir Henry Lovell Goldsworthy Gurney, K.C.M.G.

THE RULERS OF THE MALAY STATES.

THE SULTAN OF JOHORE.

H.H. Ibrahim ibni Almarhum Sultan Abu Bakar, D.K., S.P.M.J., G.C.M.G.,
K.B.E. (Mil.), G.B.E., G.C.O.C. (I).

THE SULTAN OF PAHANG.

H.H. Abu Bakar Ri'ayatuddin Al-Muadzam Shah ibni Almarhum
Almu'tasim Bi'llah Abdullah, K.C.M.G.

THE YANG DI-PERTUAN BESAR OF NEGRI SEMBILAN.

H.H. Tuanku Abdul Rahman ibni Almarhum Tuanku Muhammad, K.C.M.G.

THE SULTAN OF SELANGOR.

H.H. Hisamuddin Alam Shah ibni Almarhum Sultan Alauddin Sulaiman
Shah, K.C.M.G.

THE SULTAN OF KEDAH.

H.H. Tunku Badlishah ibni Almarhum Sultan Abdul Hamid Halim Shah,
K.C.M.G., K.B.E.

THE RAJA OF PERLIS.

H.H. Syed Putra ibni Almarhum Syed Hassan Jamalullail, C.M.G.

THE SULTAN OF KELANTAN.

H.H. Tengku Ibrahim ibni Almarhum Sultan Mohamed IV, D.K., S.P.M.K.,
S.J.M.K., K.C.M.G.

THE SULTAN OF TRENGGANU.

H.H. Sultan Ismail ibni Almarhum Sultan Zainal Abidin, C.M.G.

THE SULTAN OF PERAK.

H.H. Paduka Sri Sultan Yussuf 'Izzuddin Shah ibni Almarhum Sultan
Abdul Jalil Radziah Hu-'an-hu, K.C.M.G., O.B.E.

INTRODUCTION.

The Emergency continued throughout the year to loom large in the minds and imaginations (if not actually the lives) of all. But, whilst its effects appear haphazardly like a thin drab thread in the stout fabric of the rest of the year's doings, it is appropriate that the part specifically devoted to it should appear as an Appendix. Those who, perhaps understandably, tend to view the year wholly in terms of the Emergency would, therefore, do well to give this Report the study it deserves. If they do, they will see that in almost every field of activity the people of the Federation have marched forward, certainly hampered but equally certainly not halted by the acts of violence of the fanatic or misguided few who seek to destroy what they cannot create—a good life.

The facts and figures are incontestable and are there for all who will read. Rehabilitation after the occupation years, already well advanced, has progressed further; the outputs of almost every primary commodity showed increases and, in consequence, the value of the gross external trade advanced by 6.7 per cent. to no less than \$2,113 million. The production of tin increased by over 20 per cent., the acreage under padi reached an all-time record and 670,000 tons of rubber (a 3.8 per cent. drop on the 1948 figure but almost all of it accounted for by small-holding production where declining yields are also a factor) were produced. The output of canned pineapples and oil palm products, like the landings of fish, showed substantial increases over 1948; while the export trade in timber, where a large drop might well have been expected, showed a spectacular improvement. And all the other indices of a healthy and expanding economy—the numbers of registered motor vehicles and of telephones and telephone subscribers; the tonnages and passengers moved by the Railway and the electricity output—all these, too, pointed the same way. In fact, in 1949 the economic heart beat more vigorously than ever.

And what of the other side of the picture—of education, of health and of the social services? The Report shows notable progress there, too, though not of course to the extent which the Government or the people would have wished. The total school enrolment increased by 10 per cent. to 547,000; the birth rate increased from 40.7 per mille to 43.8 while the death rate dropped from 16.4 to 14.2—figures which are eloquent testimony to the health and standard of living of the community at large. Indeed, the implications, no less than the size, of the nett natural increase (births less deaths) which amounts to 150,370, or nearly three per cent. per annum on the mean estimated mid-1949 population, are almost breathtaking.

In the field of social welfare, quite apart from steady progress, 1949 witnessed the coming into force of special legislation for the treatment of juvenile delinquents ; and, in spite of financial stringency, \$7,000,000 was set aside during the year for housing.

All this, of course, is very satisfactory, but only when measured against the background of the Emergency—for much remains to be done ; and, for that reason, it gives no ground for the slightest tinge of complacency. The Emergency involves a grievous drain on the country's financial resources and it also deflects to less noble uses the brains, energy and enthusiasm of men and women who should be occupied with the more exciting and constructive tasks of peace.

The people have given repeated and emphatic proof that they are heartily sick of the parasitic growth that afflicts them. There is no longer any pretence that the Communist attack on their country is lined up with any nationalist aspirations. By their own campaign of murder and crime in Malaya the Communists have themselves dispelled any lingering illusion that they have something better to offer. As the year 1949 drew to its close, the experiences of the past eighteen months drove home the lesson that this is the people's fight—all of them, all of the time and all of the way.



Malay fishermen in Trengganu.



A Malay woman mending fishing nets.

FEDERATION OF MALAYA.

ANNUAL REPORT FOR 1949.

PART I.

CHAPTER I.

POPULATION.

The territory comprising the Federation of Malaya constitutes an area of approximately 50,850 square miles and is part of the southernmost extension of the continent of Asia. The peninsula is divided by mountain ranges, the principal trend of which is north and south. The centre of the peninsula is a series of parallel ridges separated by strips of low country while to the east and west of the outside ranges are the coastal plains which are mainly alluvial and in the south a region of low land. Approximately 80 per cent. of the whole area remains under primeval jungle, mountain or swamp, 14 per cent. under rubber, 2.4 per cent. under rice and 2.1 per cent. under coconuts and oil palms.

The most recent census, taken on the 23rd September, 1947, showed a total population (excluding transients) of 4,908,086 including 29,648 nomadic aborigines. This represented an increase of 29.6 per cent. since the 1931 census. The mean population density in September, 1947, was approximately 97 per square mile. The Indian population has dropped since 1931, partly as the result of the ban imposed by the Government of India on emigration from India to Malaya of unskilled labourers, but chiefly because of abnormally high death rates and low birth rates during the Japanese occupation. The indigenous Malay population has increased, and so have the Chinese. The highest percentage increase is that of the Chinese. The Malays outnumber the Chinese in the country as a whole, but Chinese outnumber the Malays in the Settlement of Penang and in the Malay States of Selangor, Perak, Negri Sembilan and Johore. Almost half the total Malay population is contained in the three Malay States of Kedah, Kelantan and Trengganu, where Malays outnumber all the other races.

By 30th June, 1949, the total population is calculated to have increased to 5,081,848. The following figures show comparative increases and decreases since 1931, by race group :

		Malaysians.	Chinese.	Indians and Pakistanis.	Others.
1931	..	1,863,872	1,284,888	570,987	68,011
1947	..	2,427,834	1,884,534	530,638	65,080
1949 (June 30th)	..	2,511,520	1,952,682	550,684	66,962

The growth of the population by the excess of births over deaths and by immigrational surplus continues to be high and is calculated to have been 1.89 per cent. between 30th June, 1948, and 30th June, 1949.

Population of the main towns of the Federation in September, 1947, was as follows :

Georgetown (Penang)	..	..	..	..	189,068
Kuala Lumpur (Selangor)	..	..	..	..	175,961
Ipoh (Perak)	..	..	..	..	80,894
Malacca (Malacca)	..	..	..	..	54,507
Taiping (Perak)	..	..	..	..	41,361
Johore Bahru (Johore)	..	..	..	..	38,826
Seremban (Negri Sembilan)	..	..	..	..	35,274
Klang (Selangor)	..	..	..	..	33,506
Alor Star (Kedah)	..	..	..	..	32,424
Bandar Maharani (Johore)	..	..	..	..	32,228
Kuala Trengganu (Trengganu)	..	..	..	..	27,004
Bandar Penggaram (Perak)	..	..	..	..	26,506
Telok Anson (Perak)	..	..	..	..	23,055
Kota Bharu (Kelantan)	..	..	..	..	22,765

IMMIGRATION.

The volume of direct immigration by sea, land or air into the Federation is small in comparison with the traffic through Singapore, which must be regarded as the main channel of entry into the country. Retention of the accepted principle of unrestricted freedom of movement between the two territories requires that they should be treated as a single geographical unit for purposes of immigration control. No survey, therefore, of the control of immigration into the Federation would be complete which did not take into account the control exercised in the neighbouring Colony of Singapore.

Since immigration is an obvious factor in the security of the country, a complete reorganisation of the Department, based on experience gained in pre-war years and adapted to meet post-war conditions, was begun early in 1949, and by the end of the year was well advanced in all main features. The new organisation provides for separate Immigration Departments in the Federation and Singapore under the overall control of a Pan-Malayan Director responsible to both Governments for the efficient working of their respective Departments and for co-ordination of policy and practice. Headquarters of the Department in the Federation has been moved from Kuala Lumpur to Penang, while steps have been taken to establish new and to strengthen existing controls on the land frontier and at certain ports, and to staff these controls with officers who will be solely engaged on immigration duties, and are at present being trained for this specialised work. Altogether, five new controls were established during the year at Kota Bharu, Rantau Panjang and Pengkalan Kubor in Kelantan, and in Malacca and Johore Bahru.

Prior to the war control of alien immigration into Malaya was regulated by means of a monthly quota of immigrants allowed entry. This quota was fixed in accordance with the economic needs of the country at the time. Since the liberation, quantitative control has been superseded by a policy of progressive restriction of immigration on a selective basis, in which both economic and political considerations play their part.

Control of entry is exercised through the medium of the various immigration laws and regulations in force, namely, the Passengers Restriction Ordinance and Enactment, the Aliens Ordinance and Enactments, the Passport Ordinance and regulations made thereunder and the Emergency (Travel Restriction) Regulations.

Subject to compliance with the above-mentioned laws and regulations, the following categories of persons are permitted entry to the country :

- (i) British subjects and British-protected persons in possession of valid British passports;
- (ii) Aliens with valid national passports, duly visaed, where a visa is required, for the Federation of Malaya and Singapore;
- (iii) Aliens to whom Certificates of Admission or Certificates of Identity (Entry Permits) have been issued by the Controller of Immigration, Federation of Malaya, or by the corresponding authority in Singapore;
- (iv) British subjects to whom Certificates of Identity (Re-entry Permits) have been issued, prior to their departure for temporary absence from the country, by the Controller of Immigration, Federation of Malaya, or by the corresponding authority in Singapore.

The Certificate of Admission referred to in category (iii) above is a document granted by the Controller of Immigration under section 23 of the Aliens Ordinance (S.S. Laws, Cap. 90), or the corresponding sections in the Aliens Enactments in force in the Malay States to persons resident in the country who wish to leave the country for not more than two years, the maximum period of validity of the Certificate. Figures of the numbers of Certificates of Admission issued during the year are given in Appendix "A".

The Certificate of Identity (Entry Permit) referred to in category (iii) above is issued to applicants in foreign countries, who wish to enter the Federation of Malaya as newcomers, and who satisfy the Controller of Immigration that they come within the categories of aliens whose entry may be permitted. Throughout the year those categories were :

- (a) Wives and children under 12 of alien residents, a resident being defined as a person who had lived not less than eight years in the country;
- (b) Skilled artisans and labourers of a type not available locally, and required for the needs of local industry;
- (c) Professional and business men, whose entry is of benefit to the country;

- (d) Persons permitted entry on special compassionate grounds at the discretion of the Controller of Immigration generally in consultation with the Secretary for Chinese Affairs.

Applicants for this type of permit were mainly Chinese. The practice of issuing Certificates of Identity (Entry Permits) to British Indians, desirous of entering the country for permanent residence was discontinued in the early part of the year, such persons being required to comply with Passport regulations and be in possession of national passports. Permission for them to enter the country continued to be dependent upon their satisfying the Immigration authorities on arrival that suitable employment was available for them in the country.

Malaya's geographical position, with her long and irregular land border with Thailand and a coastline, the greater part of which is adjacent to and within easy sailing distance by small craft from neighbouring foreign countries, renders the country particularly liable to illegal immigration. Extension of the registration of residents to the whole country has been of great assistance to the authorities in dealing with this difficult problem.

For the first time since the war, the issue of British passports was resumed in the Federation at the beginning of the year, and a full passport service is now in operation, with the principal Passport Office situated in Penang, and sub-offices in Kuala Lumpur and Kota Bharu, Kelantan. It is proposed to open a further sub-office in Johore Bharu in due course.

Statistical information is given in Appendices "B" and "C". Appendix "B" gives the overall migration figures for the Federation and the Colony of Singapore. These figures, while showing the actual loss or gain during the year, give no index of "real" immigration as they include :

- (a) persons landing in Singapore or the Federation in transit for countries outside Malaya;
- (b) persons who make frequent visits from neighbouring countries, mainly for purposes of trade, and appear as immigrants and emigrants on each occasion of their arrival and departure; and
- (c) residents who leave for temporary visits to outside countries, mainly India, China, Indonesia, and Thailand, and are classified as emigrants on their departure and immigrants on their return.

A more accurate estimate of "real" immigration, as far as alien immigration is concerned, that is the number of alien newcomers entering the country for permanent residence, may be obtained from Appendix "C", which gives the actual number of Entry Permits issued during the year both in the Federation and the Colony to alien applicants who came within the categories of persons allowed entry for permanent residence.

APPENDIX "A".

(I)

CERTIFICATES OF ADMISSION ISSUED IN THE FEDERATION OF MALAYA
DURING 1949.

Month.		Male.		Female.		Children.		Total.
January	.. ..	1,383	..	490	..	100	..	1,973
February	.. ..	2,256	..	996	..	179	..	3,431
March	.. ..	2,879	..	1,473	..	665	..	5,017
April	.. ..	1,859	..	1,009	..	326	..	3,194
May	.. ..	1,814	..	771	..	185	..	2,770
June	.. ..	967	..	371	..	83	..	1,421
July	.. ..	799	..	364	..	74	..	1,237
August	.. ..	758	..	325	..	77	..	1,160
September	.. ..	593	..	247	..	63	..	903
October	.. ..	435	..	168	..	39	..	642
November	.. ..	305	..	108	..	28	..	441
December	.. ..	321	..	80	..	34	..	435
Total	.. ..	14,369	..	6,402	..	1,853	..	22,624

(II)

CERTIFICATES OF ADMISSION ISSUED IN THE COLONY OF SINGAPORE
DURING 1949.

Month.		Male.		Female.		Children.		Total.
January	.. ..	1,427	..	383	..	118	..	1,928
February	.. ..	1,969	..	774	..	232	..	2,975
March	.. ..	2,503	..	1,271	..	523	..	4,297
April	.. ..	2,214	..	979	..	388	..	3,581
May	.. ..	2,021	..	894	..	280	..	3,195
June	.. ..	1,684	..	504	..	80	..	2,268
July	.. ..	1,862	..	692	..	91	..	2,645
August	.. ..	1,748	..	696	..	119	..	2,563
September	.. ..	1,486	..	501	..	60	..	2,047
October	.. ..	1,213	..	406	..	45	..	1,664
November	.. ..	1,028	..	260	..	45	..	1,333
December	.. ..	909	..	448	..	71	..	1,428
Total	.. ..	20,064	..	7,808	..	2,052	..	29,924

APPENDIX "B".

(I)

FEDERATION OF MALAYA MIGRATION STATISTICS FOR 1949.

Immigration.		Men.		Women.		Children.		Total.
European	.. ..	1,192	..	855	..	336	..	2,383
Chinese	.. ..	23,659	..	7,095	..	725	..	31,479
Malays	.. ..	10,762	..	12,082	..	830	..	23,674
Indians	.. ..	15,739	..	2,478	..	2,246	..	20,463
Thais	.. ..	10,821	..	2,889	..	663	..	14,373
Others	.. ..	256	..	170	..	57	..	483
Total	.. ..	62,429	..	25,569	..	4,857	..	92,855

FEDERATION OF MALAYA MIGRATION STATISTICS FOR 1949—(cont.)

Emigration.	Men.	Women.	Children.	Total.
European	786 ..	467 ..	206 ..	1,459
Chinese	29,103 ..	8,552 ..	2,602 ..	40,257
Malays	11,398 ..	10,195 ..	871 ..	22,464
Indians	15,535 ..	2,605 ..	2,931 ..	21,071
Thais	9,246 ..	2,583 ..	566 ..	12,395
Others	191 ..	157 ..	23 ..	371
Total ..	66,259	24,559	7,199	98,017

FEDERATION OF MALAYA GAIN AND LOSS OF IMMIGRANTS
FOR THE YEAR 1949.

	Men.	Women.	Children.	Total.
European	+ 406 ..	+ 388 ..	+ 130 ..	+ 924
Chinese	— 5,444 ..	— 1,457 ..	— 1,877 ..	— 8,778
Malays	— 636 ..	+ 1,887 ..	— 41 ..	+ 1,210
Indians	+ 204 ..	— 127 ..	— 685 ..	— 608
Thais	+ 1,575 ..	+ 306 ..	+ 97 ..	+ 1,978
Others	+ 65 ..	+ 13 ..	+ 34 ..	+ 112

(II)

COLONY OF SINGAPORE MIGRATION STATISTICS FOR 1949.

Immigration.	Men.	Women.	Children.	Total.
European	14,517 ..	7,988 ..	3,753 ..	26,258
Chinese	43,409 ..	12,302 ..	9,259 ..	64,970
Malays	3,487 ..	1,331 ..	634 ..	5,452
Indians	8,930 ..	1,276 ..	1,101 ..	11,307
Others	2,041 ..	523 ..	264 ..	2,828
Total ..	72,384	23,420	15,011	110,815

Emigration.	Men.	Women.	Children.	Total.
European	14,338 ..	7,121 ..	3,171 ..	24,630
Chinese	58,536 ..	17,816 ..	12,275 ..	88,627
Malays	4,063 ..	1,135 ..	737 ..	5,935
Indians	13,784 ..	1,647 ..	1,531 ..	16,962
Others	2,239 ..	663 ..	507 ..	3,409
Total ..	92,960	28,382	18,221	139,563

COLONY OF SINGAPORE GAIN AND LOSS OF IMMIGRANTS
FOR THE YEAR 1949.

	Men.	Women.	Children.	Total.
European	+ 179 ..	+ 867 ..	+ 582 ..	+ 1,628
Chinese	— 15,127 ..	— 5,514 ..	— 3,016 ..	— 23,657
Malays	— 576 ..	+ 196 ..	— 103 ..	— 483
Indians	— 4,854 ..	— 371 ..	— 430 ..	— 5,655
Others	— 198 ..	— 140 ..	— 243 ..	— 581

(III)

FEDERATION OF MALAYA AND COLONY OF SINGAPORE COMBINED
GAIN AND LOSS OF IMMIGRANTS FOR THE YEAR 1949.

			Men.		Women.		Children.		Total.
European	..	..	+ 585	..	+ 1,255	..	+ 712	..	+ 2,552
Chinese	..	..	- 20,571	..	- 6,971	..	- 4,893	..	- 32,435
Malays	..	..	- 1,212	..	+ 2,083	..	- 144	..	+ 727
Indians	..	..	- 4,650	..	- 598	..	- 1,115	..	- 6,263
Thais	..	..	+ 1,575	..	+ 306	..	+ 97	..	+ 1,978
Others	..	..	- 133	..	- 127	..	- 209	..	- 469

APPENDIX "C".

(I)

ENTRY PERMITS ISSUED TO ALIENS FOR ENTRY TO THE
FEDERATION OF MALAYA IN 1949.

Month.			Men.		Women.		Children.		Total.
January	..	..	27	..	13	..	2	..	42
February	..	..	—	..	9	..	7	..	16
March	..	..	2	..	10	..	1	..	13
April	..	..	2	..	16	..	—	..	18
May	..	..	3	..	14	..	1	..	18
June	..	..	11	..	28	..	—	..	39
July	..	..	16	..	16	..	2	..	34
August	..	..	27	..	27	..	5	..	59
September	..	..	10	..	61	..	6	..	77
October	..	..	11	..	71	..	7	..	89
November	..	..	13	..	61	..	5	..	79
December	..	..	26	..	55	..	2	..	83
Total	..	..	148	..	381	..	38	..	567

(II)

ENTRY PERMITS ISSUED TO ALIENS FOR ENTRY TO THE
COLONY OF SINGAPORE IN 1949.

Month.			Men.		Women.		Children.		Total.
January	..	..	13	..	60	..	14	..	87
February	..	..	5	..	31	..	12	..	48
March	..	..	5	..	18	..	3	..	26
April	..	..	3	..	36	..	4	..	43
May	..	..	12	..	27	..	6	..	45
June	..	..	15	..	20	..	9	..	44
July	..	..	19	..	51	..	12	..	82
August	..	..	19	..	50	..	9	..	78
September	..	..	9	..	50	..	14	..	73
October	..	..	9	..	66	..	14	..	89
November	..	..	21	..	73	..	13	..	107
December	..	..	11	..	102	..	25	..	138
Total	..	..	141	..	584	..	135	..	860

CHAPTER II.

*OCCUPATIONS, WAGES, LABOUR ORGANISATION,
TRADE UNIONS, CO-OPERATIVE SOCIETIES.*

The 1947 Census showed the numbers of those gainfully employed to be as follows :

Occupation.	Total.	Including		
		Malaysians.	Chinese.	Indians.
Fishermen	59,788	41,429	17,646	565
Agriculture (including planta- tion industries)	1,168,299	646,861	332,973	178,178
Mining, quarrying	39,837	4,436	30,824	4,342
Treatment of non-metalliferous mine and quarry products ..	146	34	87	24
Brick, pottery and glass making	1,827	302	1,341	179
Chemical processes, paint making, etc.	868	120	702	39
Metal work excluding electro- plate and precious metals ..	25,064	2,365	19,622	2,502
Precious metals and electro- plate	7,036	477	5,698	755
Electrical apparatus making and fitting, electricians ..	5,028	1,520	1,936	1,360
Watch, clock and scientific instrument making	1,178	72	1,082	21
Skin and leather making and leather substitutes	236	46	184	6
Textile making	4,337	3,822	483	19
Textile goods and articles of dress	14,648	2,254	10,948	1,381
Food, drinks and tobacco making	21,262	6,426	11,984	2,786
Wood and furniture making ..	46,756	21,982	24,038	646
Paper and card-board making; book-binding	472	76	286	101
Printing and photographing ..	2,734	342	1,931	400
Building, bricklaying, stone and slate	8,309	2,116	5,435	666
Painting and decorating ..	2,142	190	1,600	319
Other materials	7,164	1,393	5,376	368
Transport and communication	67,817	25,837	23,819	17,024
Commercial and financial occupations	153,035	25,804	103,405	22,459
Public Administration and defence	20,983	15,215	1,028	2,418
Professional occupations ..	34,844	13,357	12,775	5,324
Entertainments and sport ..	4,228	1,368	2,177	459
Personal service	81,753	9,560	54,024	17,471
Clerks and Draughtsmen: Typists	36,896	7,101	21,077	5,879
Warehousemen, Store-keepers and packers	1,608	337	741	422
Stationary engine drivers, dynamo and motor attendants	4,002	1,244	1,504	1,192
Other and undefined workers ..	82,415	25,324	22,594	33,616
Totals ..	1,904,712	861,410	717,320	300,921



**Indian women picking tea at the
Serdang tea plantation.**



An Indian, Chinese and a Malay girl packing crepe rubber in an estate factory.

This analysis may be taken to give a close indication of the distribution, by occupation, of the Federation's manpower in 1949.

The estimated shortage of labour at the beginning of the year was between 20 and 25 thousand for the whole Federation, and the greater part of this shortage existed on rubber plantations. By the middle of the Summer, however, owing to the poor price for rubber then prevailing, the demand for labour on rubber plantations had disappeared and smaller properties throughout the Federation, most of them Asian owned, had begun to dispense with some of their labour. Devaluation of Sterling reversed the situation dramatically. Throughout the last quarter of the year reports were received from all the more important rubber-producing areas of a renewed and unrequited demand for more labour. No accurate estimate was available, however, of the overall extent of this demand at the end of the year.

Returns made to the Department of Labour show that a total of 314,277 labourers were employed on plantations of all kinds at the end of 1948. By the end of the year this figure had risen to 318,574. During the year the number of Malaysians had decreased slightly from 70,237 to 69,653, that of Chinese had increased from 85,243 to 89,015 and that of Indians from 158,636 to 159,626. That the number of Malaysians working on plantations maintained itself at the same level throughout the year is noteworthy, since the Emergency has resulted in many openings for Malays in the Malay Regiment, the Police and the Special Constabulary. It is evident that the Malay's traditional reluctance to resort to a wage economy continues to weaken. The figures for Chinese call for some analysis; the number of men employed actually decreased from 52,329 to 51,865 over the period; that of women employed thus increased from 32,914 to 37,150. It is certain that there was some small movement of Chinese male labour from plantations to tin-mining, but it is feared that there was also movement from the plantations into the jungle.

Figures for the Federation's other principal industry, mining and dredging, are of similar interest. Returns made to the Mines Department show that there were 51,267 labourers employed on dredges and mines of all kinds at the end of 1948, and 52,640 at the end of 1949. This is in striking contrast with the increase in the number of workers, namely, 15,920, that occurred during 1948. The explanation is no doubt largely that the rehabilitation of the industry was far advanced by the end of 1948, if not complete; it is also clear that, by the more attractive wage rates which it has been able to offer, the industry has already satisfied its labour requirements to a far greater extent than the plantations can yet satisfy theirs. Indeed, the Mines Department's figures show that, while the number of workers employed by European tin mines and dredges increased during the year from 21,707 to 22,471, that of workers employed on Chinese tin mines actually fell from 25,151 to 24,552. Figures collected by the Department of Labour give the number of workers employed in the industry by race at the end of 1949, as 10,069 Malaysians, 36,387 Chinese and 7,098 Indians. Corresponding figures for the end of 1948 were 9,110 Malaysians, 34,896 Chinese and 6,929 Indians.

Some further progress has been made during the year, despite the Emergency and the high cost of building, in rebuilding and renovating living accommodation on plantations and mines. Living conditions on many smaller places of employment are still far from satisfactory, and little progress has been made in their improvement. But, in general, the housing conditions of the urban worker are the least satisfactory, for in all the larger towns overcrowding is severe. On numerous plantations and European mines, schools, playing fields, cinemas, radios and other amenities are now available to the workers; some of the more progressive employers have established well-equipped social centres.

Owing to differences in terrain, variations in the incidence of industrialisation and the fact that Malay, Chinese and Indian workers are not evenly distributed, each State or Settlement has to some extent its own characteristics and problems of labour and employment. Generally, however, the year may, without hesitation, be said to have been industrially peaceful. With one exception, there were no major disputes, few of the disputes that arose resulted in any stoppage of work and such stoppages of work as occurred were soon over. A total of 5,390½ man-days were lost throughout the year. In 1948 the number was 370,464; of which 364,630 man-days were lost in the first half of the year, that is, before the Communists turned from industrial sabotage to open terrorism.

What this open terrorism has meant, throughout the year, for all those working on plantations or in mines or dredges over large areas of the Federation must not, however, be forgotten. The employers have been under the immense strain of a constant vigilance against possible armed attack upon the property for which they are responsible, upon their workers or upon themselves. Perhaps the position of the worker, especially the Chinese and the Indian worker, has, by comparison, been a little overlooked. He has been often subject to pressure from and extortion by the terrorists; often, unavoidably, he has been subjected to counter pressure by the Police or military and has found himself under their suspicion. At best he has lived in fear, and his daily movements have been controlled and often restricted. In fact, if he has not been under the same stress as his employer, he has suffered from an equal insecurity.

The one industrial dispute of importance deserves mention. The price of rubber declined so rapidly in April and May, and to such an extent, that the employers considered a reduction of wages to be essential. Towards the end of May discussions were initiated between the Malayan Plantation Industries Employers' Association and representatives of the various rubber estate workers' unions. No agreement could be reached, and late in July the employers' association instructed its members to impose certain cuts in the rates paid to rubber tappers from 1st September. The workers' unions would not accept this "fait accompli", and the Federal Government therefore set up an Arbitration Board to inquire into the dispute. It was the first time that such an issue, for it was a country-wide one and vital to the future of the Federation's foremost industry, had gone to arbitration.

When the Arbitration Board was on the point of submitting its report, however, the whole basis of the dispute was dramatically removed by the devaluation of Sterling and an immediate and steep rise in the price of rubber. The Board, therefore, never made an award, but it issued a number of recommendations as a basis for further negotiations between the parties to the dispute. These recommendations prescribed strict limits within which tappers' rates of pay might fluctuate according to a sliding scale without recourse being had to negotiation between the employers' and workers' unions and suggested that ranges be fixed both for the price of rubber and for that of foodstuffs (or rice only) within which the rates of pay should not be varied. They urged that tappers' daily tasks should in all cases bear a clear relation to one or other of a number of well defined standard tasks, these standard tasks being in respect of existing combinations of the different types of rubber and of terrain. They sought the standardisation of the calculation of rates of pay and the payment of an additional allowance to tappers who were not housed by the employer. And, finally, they suggested means by which the worker might be kept informed from day to day of his earnings and might have a clear understanding of the methods by which they were calculated. In the body of its report, the Board touched on one matter which is, perhaps, of special moment. Broadly, it suggested that, so long as estates were actually replanting their rubber, the workers should, in their own long-term interests, moderate their demands for increases, or accept cuts, in their wages, but that they should at the same time clearly recognise that replanting improved the companies' position and that this recognition might properly guide the workers' reactions if substantial funds were diverted from replanting to the distribution of dividends.

Trade Unions.

It is probable that 1949 will be considered to have been a year of major importance in the history of Malayan Trade Unionism. In February the first Conference of Delegates of Malayan Trade Unions was convened and in the short space of 10 months there has developed amongst the trade union leaders a growing unity and consciousness of an identity of interests that has transcended racial, lingual and sectional interests and divisions.

The Working Committee which was elected by the Delegates Conference has carried out its duties with remarkable vision and ability. In spite of the limitations imposed upon it by lack of funds and office facilities it has regularly met the trade union representatives on the Federal Legislative Council and Labour Advisory Board and acted impartially and with honesty on many vital matters involving questions of principle. If and when the next Trade Union Delegate Conference approves the draft constitution for a Malayan Trade Union Council many of the existing problems affecting the trade unions may be resolved.

The Working Committee's acceptance of the invitation from the Secretary of the Free World Labour Conference to send Observers to attend the London Conference was a major decision. For the

first time in its short history the Malayan Trade Union movement made contact with its trade union colleagues representing the free and democratic forces in other parts of the world.

It was hoped that 1949 would have seen a progressive development of the educational activities of the Department. This has not been possible on a large scale owing to circumstances outside the control of the Trade Union Adviser's Department. However through the co-operation of the Department of Public Relations arrangements were made for the Officers to be accompanied on special tours by the Public Relations public address and mobile film units which made it possible to show educational films and give educational talks to thousands of workers. The results of this type of educational activity have been very encouraging.

To help trade unions to understand the general principles and practices of democratic trade unionism, the Trade Union Adviser's Department, prepared and published simple pamphlets in four different languages to supplement the advice and explanations given to trade unions at meetings and during visits. The pamphlets dealt with such subjects as "Trade Union Membership and Officers", "Trade Union Funds", "Collective Bargaining", "Whitley Councils", and "Trade Unions & the Emergency".

The Department has planned the production of simple guides and text-books to assist trade union officers in the proper administration of their unions. These guides are designed to serve two distinct purposes :

- (a) As standard text-books for use by students attending week-end Trade Union Classes.
- (b) As standard reference books for trade union officers and members.

Amongst such publications issued free of charge by the Trade Union Adviser's Department were :

- (i) A Guide for Keeping Trade Union Membership Register and Accounts.
- (ii) Model Standing Order and Guide to Secret Balloting.
- (iii) Guide to Trade Union Rules and Benefit Fund Scheme.
- (iv) Guide to Secret Ballot Rules.

In the preparation of books and pamphlets in vernacular languages the considerable assistance of the Department of Public Relations is acknowledged.

During 1949 the trade unions have shown an increasing interest in adult education and in some cases have begun to promote, organise and run their own adult schools for the benefit of their members. The first trade union in Malaya to obtain Government aid towards adult educational classes was the Municipal Government Labour Union, Penang and Province Wellesley.

Whitley Councils.

Since the formation of the Interim Joint Council in August, 1946, there has been a steady and continuing interest in methods of promoting good staff relations between Government and its employees. This machinery has served a very useful purpose not only in resolving many staff problems and difficulties but in giving

experience to both Government and the staff representatives of direct negotiations and the technique of working conciliation machinery.

The setting up of the Interim Joint Council also provided an opportunity for the unions, generally those catering for daily paid staff, to get together for the purpose of appointing the representatives to the Council of the staff. There is no doubt that the success attending the use of this interim machinery aroused the interest in Whitleyism of the trade unions and staff associations catering for the monthly paid staff.

Most of the organisations catering for monthly paid staff were, however, more engrossed with the continuous succession of Government Committees and Commissions dealing with employment conditions and it was not until 1949 that a real and active interest was taken in Whitleyism.

The constitutions already agreed or, in process of drafting, follow a uniform pattern based upon the "Model Constitution for a Departmental Whitley Council". This was an appendix to the United Kingdom Report of National Provisional Joint Committee on the application of the Whitley Report to the Administrative Departments of the United Kingdom Civil Service.

The Customs Departmental Council and the Survey Department Area Council are examples of this pattern. There are however many interesting variations on the Model and between the various Malayan Departmental constitutions themselves.

In a country like Malaya, there is inevitable need for flexibility and adjustment. The present policy is to formulate schemes by Working Parties, representing both the official and staff sides. Provided the principles and purposes of Whitleyism are followed, then the slowly-evolving machinery for establishing and maintaining good relations between Government and its staff will make its own pattern based upon the special circumstances and requirements of Malaya. Government's decision to set up a special Whitley Council Office in the Service Branch of the Secretariat is a logical step and in line with the growing development of Whitleyism.

1949 has clearly demonstrated the genuine desire of the Malayan trade union movement to proceed along constitutional and democratic lines in its efforts to improve the conditions of living of the workers in general. The removal of the undesirable elements that had previously battered on the trade unions for the 2½ years prior to the Emergency, coupled with the absence of political control by the Malayan Communist Party, has given limited opportunities and facilities for the development of a responsible trade union movement and policy.

The Malayan trade union leaders realise that democratic trade unionism cannot function or possess an independent value under political tyranny. A condition of its existence must be some measure of social freedom. As it develops it requires a wider range of freedom and in its fullest possibility needs the environment of a political democracy. Therefore, for that reason, if for no other,

the trade union leaders are opposed to communist domination. They and their unions have had every good reason to be suspicious or apprehensive of any approach, however disguised or open, which may come from the Communist Party. They have learnt the hard way from bitter experience.

But the restrictions and limitations which the conditions arising from the Emergency have placed upon the young trade union movement cannot be overlooked. Even in normal times the administration and organising problems facing the new Malayan trade union movement were extremely difficult but in this period of acute Emergency they became almost insoluble.

Meetings, correspondence, propaganda, collections and good administration are all essential parts of the business of creating and maintaining a sound trade union organisation. For the last 18 months, it has been impossible, with few exceptions, for any real constructive work to be carried out by the trade unions catering for non-Government employees. Organising workers on estates and mines, often remote from the large towns, had become practically impossible.

There is no need to stress the physical and psychological problem facing a voluntary trade union officer who, after completing his normal day's work, wishes to visit workers on estates or mines either to organise a meeting or to collect subscriptions, particularly if this has to be done at night. Not for him the armed escort or special security arrangements to allow him to carry out his legitimate and lawful business. He must make his way and take his chance as best he can.

To the voluntary trade union officers, committee men and members, the fears and uncertainties produced by the Emergency are very real factors in their daily life. Government's emphatic declaration that the Emergency measures are not directed against the trade unions has not entirely removed their doubts or difficulties.

The year has been a testing period for trade unions in Malaya. While as a result of Emergency conditions membership has fallen from about 70,000 to 42,288 during the year, nevertheless, the surviving unions have now formed a solid bloc of workers' democratic associations likely to present an unshakable front to the difficulties of the future. The holding of the First Conference of Trade Union Delegates from all parts of the Federation, the decision to appoint a Working Committee, the assistance which the Working Committee has provided to the trade unions and to Government, the increase in status of trade unions generally as a result of Government's recognition of the Working Committee, and the visit of a Malayan delegation to the Free World Labour Conference are all sound steps in the progress of the growth of democratic trade unions in Malaya.

Registration of Trade Unions.

The table below indicates the details of the registration of Trade Unions in the Federation of Malaya during 1949 :

	Applications for Registration.			No. of Trade Unions Registered.			No. of Trade Unions.					Position as at 31-12-49.	
	At end of 1948.	Received during 1949.	Total.	At end of 1948.	Received during 1949.	Total.	Abandoned or refused.	Dissolved.	Cancelled.	Withdrawn.	Total.	No. of Unions on record.	Outstanding Applications.
Employers	25	2	27	23	1	24	2	9	7	2	20	6	1
Employees	501	51	552	317	37	354	182	43	138	10	373	163	16
Total ..	526	53	579	340	38	378	184	52	145	12	393	169	17

At the beginning of the year there were 162 Trade Unions on record and 25 applications for registration under consideration. Out of the 162 unions on record 17 were formerly under the control of the now dissolved Communist controlled Pan Malayan Federation of Trade Unions, 22 whose status was doubtful and 123 unions who were considered to be independent of any outside control.

The Trade Unions Enactment No. 11 of 1940 was amended on 6th June, 1949, by the Trade Unions (Amendment) Ordinance No. 20 of 1949 after approval by the Federation Labour Advisory Board. This Ordinance determined matters which must be decided by a ballot vote of all the members and empowered the Registrar to satisfy himself that the rules relating to the taking of decisions by secret ballot are such that every member of the union entitled to vote has an equal right and, so far as is practicable, a reasonable opportunity of voting and that the secrecy of the ballot is properly secured. This amendment was necessary as the previous wording "The taking of all decisions by secret ballot" was unduly restrictive.

The same Ordinance provided for (a) the Registrar to approve a corporation as a sole Trustee of a Trade Union instead of the appointment of three Trustees to facilitate transactions in property, (b) the inspection of books and accounts by persons having an interest in the funds of the Trade Union and by the Registrar, (c) the laying of new regulations on the table of the Legislative Council at the first meeting of the Council after publication of such regulations in the *Gazette* and (d) the gazetting of the registration of the change in the location of the registered office of a Trade Union.

A Regulation prescribing the method of appeal against an order of the Registrar to the Chief Secretary was published as L.N. 169 in the Federation of Malaya *Gazette* dated 21st April, 1949.

A further Regulation published as L.N. 630 on 30th December, 1949, permits the use of Trade Union funds for the payment of subsistence and travelling allowances and compensation for loss of wages to representatives of Trade Unions attending lawful meetings connected with negotiations, collective agreements and the establishment of co-ordinating and advisory bodies.

The year has generally been one of regrouping and consolidating healthy Trade Unions administered by persons in the trade, industry or occupation which the unions represent, assisted in a few cases by persons who though not at present engaged in the trade or industry have had previous experience in the trade or industry.

Thirty-eight Trade Unions were added to the Register during the year and 31 Unions were removed from the Register on the grounds of dissolution, cancellation or withdrawal. The position at the end of the year was 169 Unions on record and 17 applications for registration under consideration.

The total membership of the registered employees unions on the 31st December, 1949, was 41,305. An approximate breakdown of racial classification of the membership at the end of the year was Indians 23,957 (58 per cent.), Chinese 9,913 (24 per cent.), Malays 5,370 (13 per cent.) and others 2,065 (5 per cent.).

An analysis of the income and expenditure of the 156 employee unions for the year 1st April, 1948, to the 31st March, 1949, as shown in their annual returns is as follows :

Total income for the year 1948/49 = \$396,655.64.

Percentage of total income.				Percentage of expenditure to total income.			
		1947.	1948.			1947.	1948.
		%	%			%	%
Entrance Fees	..	3.3	4.7	Establishment Expenditure	.. ..	13	7.7
Subscriptions	..	74.5	73.2	Salaries, Allowances and Wages	..	28.6	21.6
Levies	.. ..	.1	—	Rents, Rates and Taxes	.. ..	11.5	9.0
Sale of Rules, etc...		1.8	1.0	Stationery, Printing and Postages	..	11.9	8.0
Donations	.. ..	5.8	6.2	Compensation in Trade Disputes	.. ..	.2	1.1
Other Means	..	14.5	14.9	Benevolent Activities		4.6	3.7
				Education, Social and Religious	.. ..	5.3	2.8
				Affiliation Fees to Federation	.. ..	.1	1.8
				Other Expenses	..	20.3	36.6
				Excess of Income over Expenditure	..	4.5	7.7

The total membership of employee trade unions on the 31st March, 1949, was 40,289. The income and expenditure shows an average annual contribution per member as follows :

INCOME.			EXPENDITURE.		
	1947.	1948.		1947.	1948.
	\$ c.	\$ c.		\$ c.	\$ c.
Entrance Fee ..	32	36	Establishment Expenses	1 27	60
Subscriptions ..	7 35	5 66	Salaries, Allowances and Wages ..	2 82	1 68
Levies	—	—	Rents, Rates and Taxes	1 13	70
Sale of Rules, etc. ..	17	08	Stationery, Printing and Postages ..	1 17	62
Donations	57	48	Compensation in Trade Disputes	02	08
Other Means ..	1 43	1 15	Benevolent Activities	45	48
			Education, Social and Religious	52	22
			Affiliation Fees to Federation	01	13
			Other Expenditure ..	1 99	2 83
			Savings	46	59
	<hr/>			<hr/>	
	9 84			9 84	
	<hr/>			<hr/>	

Wages.

Generally, wage levels in the plantation industries remained throughout the year at the levels which the Malayan Planting Industries Employers' Association had fixed from 1st April, 1948, after it had reached agreement with a representative number of the workers' unions. In the case of a large number of smaller properties not in membership with the employers' association, however, wages were appreciably reduced when the price of rubber fell steeply in April and May. These cuts were restored when, on the devaluation of Sterling, the price of rubber again rose. The number of Indian rubber tappers working for piece rates continued to increase steadily throughout this year; and, though there were still isolated instances both of employers who continued to engage their Indian tappers on daily rates and of tappers who preferred to continue on daily rates, the tappers' output tended to improve and their earnings to rise accordingly.

In the mining industry also, wage levels remained constant, having been adjusted following the increase in the controlled price of tin in June, 1948. When the price of tin again rose following the devaluation of Sterling there was some talk among the workers on Chinese mines of the propriety of a corresponding rise in wages, but the employers emphasised that operating costs had also gone up and the revision of wage rates was not in fact formally discussed. In general, the comparatively high rates that the industry is able to pay continued to render the engagement of staff a comparatively easy matter despite the state of virtually full employment that continued throughout the year.

The wage levels for workers employed by the Government, which are based on the Wages Commission Report implemented in 1947, have remained constant.

Other industries, taking their lead from the plantation industries, from mining and from Government, also kept wages at a constant level.

Cost of Living.

The general trend of the cost of living was downwards during the first half of 1949, but rose again towards the end of the year. The accompanying tables of several groups of indices show the movement during the year, together with averages for the year.

It will be seen that the European index (based on January, 1949=100) rose to 100.4 in December, while the indices for the clerical categories had fallen to 99.4. Based on 1939=100 comparative indices were as follows :

				1949.			
				January. December. Average.			
European	..	..	..	235	..	236	.. 234
Malay (clerical)		..	..	331	..	329	.. 323
Eurasian, Chinese and Indian							
(clerical)	..	..	..	321	..	319	.. 314

Food and clothing group indices showed a small decrease on the year, but the indices for transport, drinks and tobacco, and servants showed a slight increase. The largest increase was for fuel and light; excluding firewood, all items in this group increased in cost.

The cost of living of Chinese and Indian labourers continued to show a steady downward trend until the latter part of the year when the respective indices rose slightly. The comparative table of labourers' indices shows that, based on January, 1947=100 the Chinese index had fallen to 82 in December, 1949, and the Indian index to 89. An index for Malay labourers was commenced in 1949; based on January=100 it fell to 95 in May, but thereafter rose steadily to 100 again in November and December.

Price indices are published monthly in the *Government Gazette* for various items of food, drinks, tobacco, clothing, household requisites and transport, and a table follows which gives the monthly indices for 1949 together with the annual averages and the averages for 1948. The indices are unweighted and are based on 1939=100. Most groups include a number of items, the index number being an average of the percentage increase or decrease of each item inside the group.

Average market prices are published monthly in the *Gazette*, and in July, 1949, a new table was introduced showing, in addition to the overall averages for 14 markets, the individual market monthly average prices. The average monthly prices for 1949 are given in a table which follows, together with a table showing the individual market prices for December, 1949.

Comparative prices for foodstuffs are based on the averages of weekly market price reports from Alor Star, Kota Bharu, Kuala Trengganu, Penang, Taiping, Ipoh, Sitiawan, Kuala Lumpur, Kuala Lipis, Kuantan, Seremban, Malacca, Muar and Johore Bahru.

Most items of food showed a gradual decrease in price during 1949, the most marked being free market sugar and rice. Sugar ceased to be rationed on 11th July, and price control was lifted on 1st September when free market sugar had fallen to almost the same price as that for Government supplies. The average price in January was 41 cents per kati (controlled price 28 cents per kati) and in December 31 cents per kati.

Free market rice showed a rapid decrease in price in the first quarter of the year, and then remained fairly steady until the end of the year. Average prices of free market rice in cents per kati during the year were as follows :

														Average.		
														1949. 1948. 1947.		
		Jan.	Feb.	March.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.			
Siamese	..	50	47	44	43	42	41	40	39	39	39	39	38	42	60	77
Local	..	35	34	32	31	31	31	31	32	31	32	32	31	32	44	55
Broken	..	28	27	27	27	28	28	29	27	28	29	29	28	28	33	44

The controlled price of rice varied as follows :

January-April 30 cents per kati

May-26th November 28 „ „

26th November-December .. 26 „ „

The average price for 1949 was 28½ cents as compared with 30 cents for 1948, and 24 cents for 1947.

Most items of imported meat rose in price in December, the increase varying from 2 to 32 cents per lb. These increases were attributed to the higher freight charges and increased cost of labour in Australia and not to devaluation.

Nearly all curry stuffs showed an increase in price throughout the year, the greatest increase being in pepper which increased from \$2.29 (black) and \$2.47 (white) per kati in January to \$6.04 and \$7.80, respectively in December. Mace also showed a big increase from \$1.93 per kati in January to \$2.93 per kati in December.

Coffee showed a gradual increase from \$1 per kati in January to \$1.48 per kati in December.

The Central Electricity Board increased their rates in March and again in December. Prices of firewood and kerosene showed a decrease through the year until November when kerosene rose to the highest price of the year and continued unchanged until the end of the year.

Petrol was \$1.45 from January to June and decreased in July to \$1.40 but rose to \$1.52 in November and remained at that figure until the end of the year.

Prices of spirits, aerated waters and cigarettes remained unchanged throughout the year, but most brands of tobacco increased slightly in price in July, remaining unchanged for the rest of the year.

There was little variation in clothing prices, women's materials rising slightly in March.

COMPARATIVE INDICES OF COST OF LIVING FOR 1949.
(European and Clerical Categories.)

Budget group and Nationality.	Average, 1948.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Average, 1949.
(i) FOOD														
European	306	301	295	292	290	286	289	295	291	290	292	294	299	293
Malay	445	423	411	400	397	393	392	401	403	406	411	417	419	406
Chinese, Indian and Eurasian	408	394	385	377	373	369	369	376	376	377	381	386	389	379
(ii) DRINKS AND TOBACCO														
European	275	279	279	279	279	279	279	280	280	280	280	280	280	279
Malay	251	265	265	265	265	265	265	268	268	268	268	268	268	267
Chinese, Indian and Eurasian	251	265	265	265	265	265	265	268	268	268	268	268	268	266
(iii) SERVANTS														
European	232	245	245	245	245	245	245	246	246	246	246	246	246	245
Malay	281	284	284	284	284	284	284	293	293	293	293	293	293	288
Chinese, Indian and Eurasian	284	287	287	287	287	287	287	296	296	296	296	296	296	291
(iv) FUEL, LIGHT AND WATER														
European	145	147	152	160	160	158	158	158	158	155	155	160	162	157
Malay	168	173	177	181	181	178	178	177	177	171	171	183	181	177
Chinese, Indian and Eurasian	168	173	177	181	181	178	178	177	177	172	172	182	181	177
(v) TRANSPORT														
European	179	179	179	179	179	179	179	177	177	177	177	181	181	179
Malay	201	192	192	192	192	200	200	197	195	195	194	194	194	195
Chinese, Indian and Eurasian	202	192	192	192	192	200	200	197	195	195	194	194	194	195
(vi) EDUCATION														
European	129	135	135	135	135	135	135	135	135	135	135	135	135	135
Malay	157	152	152	152	152	152	152	152	152	152	152	152	152	152
Chinese, Indian and Eurasian	157	152	152	152	152	152	152	152	152	152	152	152	152	152
(vii) CLOTHING														
European	310	308	308	308	309	309	306	306	306	306	306	306	306	307
Malay	316	313	313	316	315	315	311	311	310	310	310	309	309	312
Chinese, Indian and Eurasian	316	313	313	316	315	315	311	311	310	310	310	309	309	312
TOTAL WEIGHTED INDEX														
European	232	235	234	234	233	232	232	234	233	233	233	234	236	234
Malay	340	331	325	321	319	317	316	321	322	323	325	328	329	323
Chinese, Indian and Eurasian	328	321	317	314	312	310	309	313	313	313	315	318	319	314

Base—1939 = 100.

COST OF LIVING INDICES, 1949.

European, Clerical Classes, and Labourers.

Base: January, 1949=100.

1949.	European.	Clerical.		Labourers.		
		Malay.	Eurasian, Chinese and Indian.	Malay.	Chinese.	Indian.
January	100	100	100	100	100	100
February	99.6	98.2	98.8	99.7	98.8	98.9
March	99.6	97.0	97.8	99.6	97.6	97.8
April	99.1	96.4	97.2	97.5	96.5	96.7
May	98.7	95.8	96.6	95.5	95.3	96.7
June	98.7	95.5	96.3	95.6	95.3	96.7
July	99.6	97.0	97.5	95.8	95.3	96.7
August	99.1	97.3	97.5	95.9	94.1	96.7
September	99.1	97.6	97.5	96.9	95.3	95.7
October	99.1	98.2	98.1	98.4	95.3	96.7
November	99.6	99.1	99.1	100.0	96.5	97.8
December	100.4	99.4	99.4	99.5	96.5	96.7
Average	99.4	97.6	98.0	97.9	96.4	97.3

COST OF LIVING INDICES, 1947, 1948 AND 1949.

Chinese and Indian Labourers.

Base: January, 1947=100.

Month.	Chinese.			Indian.		
	1947.	1948.	1949.	1947.	1948.	1949.
January	100	90	85	100	101	92
February	101	91	84	99	100	91
March	97	90	83	97	98	90
April	91	88	82	99	97	89
May	92	87	81	100	96	89
June	91	86	81	97	95	89
July	92	86	81	101	95	89
August	91	86	80	101	95	89
September	90	86	81	99	94	88
October	88	86	81	99	92	89
November	89	85	82	98	92	90
December	89	84	82	99	92	89
Averages	92	87	82	99	96	90

PRICE INDICES FOR FOOD, CLOTHING, HOUSEHOLD REQUISITES AND TRANSPORT.

MONTHLY INDEX NUMBERS FOR 1949.

Base: 1939=100.

No.	Group.	No. of items in each group.	Average Index numbers 1948.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Average for the year 1949.
Food (Market Prices).																
1	Meat ..	4	419	410	411	409	406	384	390	393	391	394	391	388	395	397
2	Poultry ..	2	314	345	329	322	317	287	276	275	275	283	286	286	303	299
3	Eggs ..	2	487	480	460	460	460	460	460	508	494	480	494	480	480	476
(a)	Fresh Milk ..	1	303	304	304	304	288	312	304	296	296	288	296	296	304	299
(b)	Fish ..	6	324	323	312	297	295	277	281	302	307	315	316	319	325	306
(a)	"	4	370	378	366	356	345	328	329	356	369	361	348	354	369	355
(b)	Dried "	16	431	403	388	383	374	370	372	388	371	378	372	387	413	383
(a)	Fresh Vegetables ..	1	571	571	571	571	571	533	533	533	533	533	533	533	495	543
(b)	Rice (Rationed)	1	848	724	686	648	648	648	629	629	629	629	629	629	610	645
(a)	" (Free Market)	1	428	400	400	400	400	400	400	400	*	*	*	*	*	400
(b)	Sugar (Rationed)	1	626	586	586	557	543	529	500	457	457	443	429	429	443	497
(a)	" (Free Market)	14	546	571	558	546	536	564	581	641	687	732	819	890	898†	669
8	Curry Stuffs †	1	509	508	508	500	492	462	462	454	438	462	462	469	500	476
(a)	Coconut Oil ..	1	276	267	267	262	262	262	262	262	248	248	248	248	230	256
(b)	Margarine .. and Dripping ..	2	341	330	305	304	310	319	353	322	315	297	300	300	293	312
10	Fresh Fruit ..	6														
Singapore Cold Storage, Kuala Lumpur.																
11	Meat ..	6	195	183	183	183	183	183	180	180	191	191	191	195	211	188
(a)	Bread ..	2	317	317	317	317	317	317	317	317	317	317	317	317	317	317
(b)	Bacon ..	2	179	182	182	182	182	182	185	185	185	185	204	204	208	189
(c)	Offal ..	4	198	187	187	187	187	187	182	182	182	182	182	186	206	186
(d)	Butter .. (Fresh and Tinned)	2	232	240	240	240	240	240	247	258	258	258	258	258	264	250
(e)	Coffee and Tea ..	2	221	221	221	221	221	221	225	225	225	215	231	240	240	226
(f)	Miscellaneous ..	13	226	217	217	219	218	217	217	220	219	220	223	225	222	220
(g)	Firewood and Lighting.															
12	Firewood ..	1	208	213	213	213	213	207	207	207	207	195	195	213	207	208
13	Kerosene ..	1	153	170	170	171	171	171	171	164	164	164	164	187	187	171
14	Electricity ..	1	122	122	122	136	136	136	136	136	136	136	136	186	143	134

* Sugar ceased to be rationed on 11th July and the price ceased to be controlled on 1st September, 1949. † The substantial increase in this index number throughout 1949 is due to the rapid rise in the price of pepper, and, to a lesser extent, to the rise in the price of mace.

PRICE INDICES FOR FOOD, CLOTHING, HOUSEHOLD REQUISITES AND TRANSPORT—(cont.).

MONTHLY INDEX NUMBERS FOR 1949—(cont.).

Base: 1939=100—(cont.)

No.	Group.	No. of items in each group.	Average Index numbers 1948.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Average for the year 1949.
Transport.																
15	Petrol and Oil ..	2	178	179	179	168	168	168	168	164	164	164	164	188	188	172
16 (a)	Car Tyres and Tubes ..	9	112	109	109	109	109	109	109	109	109	109	109	109	109	109
(b)	Bicycle Tyres and Tubes ..	2	256	248	248	248	248	248	248	248	248	248	248	248	248	248
(c)	Bicycles ..	4	..	172	171	171	173	173	173	172	161	161	160	159	159	167
Drinks and Tobacco.																
17 (a)	Spirits and Beer ..	4	306	311	311	311	311	311	311	311	311	311	311	311	311	311
(b)	Aerated Waters and Cordials ..	3	223	223	223	223	223	223	223	223	223	223	223	223	223	223
18 (a)	Cigarettes ..	3	254	268	268	268	268	268	268	268	268	268	268	268	268	268
(b)	Tobacco ..	7	225	236	236	236	236	236	236	252	252	252	252	252	252	244
19	Toilet Requisites ..	8	200*	224	224	224	224	217	222	222	221	221	221	223	217	222
20	Household Linen and Bedding ..	8	368	398	398	385	396	408	408	386	373	371	382	380	380	388
Clothing.																
21 (a)	Women's ..	10	300	297	297	287	287	287	283	282	283	283	283	283	283	286
(b)	Children's ..	6	318	338	338	338	338	338	338	338	338	338	338	338	338	338
(c) i	Men's ..	8	285	286	286	296	298	298	297	298	299	299	299	299	299	296
ii	Sarong and Baju ..	2	306	284	284	281	281	278	278	275	273	270	270	270	270	276
(d) i	Men's Materials ..	3	410	417	417	411	403	401	398	394	392	394	394	393	393	401
ii	Women's Materials ..	9	374†	337	337	347	347	347	340	340	340	340	340	340	338	341

NOTES.—1. Indices for food are calculated from market price lists for 14 centres.

2. Indices for men's clothing groups are calculated from returns received from stores and shops throughout the Federation.

3. All other indices are based on Kuala Lumpur prices.

4. The price of rationed rice is controlled.

* Based on 7 items. † Based on 5 items.

CO-OPERATIVE SOCIETIES.

There has been a steady development of existing types of co-operation and the introduction of a few new types during the twelve months under review. No new co-operative officers were appointed in 1949 owing to financial stringency but provision has been approved for five new probationers in the 1950 estimates.

The shortage of senior staff to advise and supervise the work of young inexperienced officers was severely felt, especially where it was necessary to station the latter in areas distant from headquarters. In certain districts the Communist—inspired terrorist insurrection has made the formation of new societies and the supervision of existing societies difficult and sometimes dangerous. In a few districts bordering on jungle known to contain bandit hideouts, the members of Co-operative Societies have preferred to suspend operations. It was felt that assembly for meetings might constitute a danger.

The Debtor/Creditor Ordinance and other legislation designed to regulate dealings during the Japanese occupation was passed during the year and came into force on 1st October, 1949. The moratorium on such dealings was lifted on the same date. It will at last be possible for societies which worked during the occupation period to clear up their accounts. More rapid progress was made in completing arrears in audits. It is confidently expected that all audits will be brought up-to-date during 1950.

Rural Credit Societies.

The number of Rural Co-operative Credit Societies increased from 139 to 168. Total membership was 5,077 as against 4,651 in the previous year. The figures constitute a record. Loans to the value of \$53,774 were granted during the year and repayments of \$43,507 received. Share capital was \$159,654; deposits \$6,114 and Reserve Funds \$34,683.

The steady rise in this valuable Raffeisen type of society of unlimited liability is most gratifying. It means that small rural communities are building up their own banks with savings and so are gradually freeing themselves from reliance for credit on the middleman and the pawn-shop. During the coming year efforts will be made to form Banking Unions in selected areas so that the surplus funds of the more prosperous societies may be available to help societies where the funds are insufficient for the needs of their members. The model by-laws for such societies require shares of \$100 (£12 approx.) payable within 10 years at not less than \$10 a year. It is considered that this system not only builds up a substantial share capital but also encourages thrift by accustoming members to save something at regular intervals.

Rural Co-operative Credit Societies are limited to not more than 50 members but this number may be increased with the sanction of the Registrar. It is found in practice that it is most unusual to find a Secretary with sufficient knowledge and education to manage more than the prescribed maximum.



Krian Irrigation canal.



The Bukit Merah irrigation reservoir showing the gates to the irrigation canal which feeds the Krian Padi Area.

Fishermen's Societies.

The number of fishermen's societies remained at five. All are primary societies. Two societies deteriorated and it is feared that they may have to be liquidated. Lack of ready markets and absence of fish in the customary fishing grounds have had a depressing effect on members. The most promising is in East Pahang where a local market is available.

It is to be feared that no real improvement of the fishermen's lot can be made until the very powerful marketing ring is broken. The whole question of fish marketing is receiving the attention of Government. Until a solution is found the fishermen will remain in the clutches of middlemen.

In the twelve months under review, membership rose from 252 to 288; share capital was \$2,097; working capital \$2,399; loans granted were \$260 and repayments collected \$227.

Seasonal Co-operative Credit Societies.

These societies are composed of padi planters and their purpose is to finance the planting of the annual crop and to maintain the planters until the harvest. All loans are, therefore, short-term loans and are repayable with interest at the harvest. At the end of the year there were 78 registered societies of this type with a membership of 1,737; a paid-up share capital of \$35,847 and reserve funds amounting to \$816. Loans to the value of \$15,369 were granted to members. These societies are mostly to be found in the rice growing areas of Krian (Perak) and Kedah.

Labourers' Co-operative Credit Societies.

Although the number of these societies fell from 384 to 380 owing to the liquidation of six societies, whilst two new societies were registered, the condition of the majority showed a steady improvement. These societies are mostly to be found on large rubber estates with a resident labour force. It was feared that there would be many casualties amongst them after the liberation but the patience, tact and hard work of the Indian Co-operative Officers responsible for supervision have led to a revival greater than had been hoped for two years ago when most labourers were completely under the domination of communist Trade Union leaders who are now engaged in active terrorism and revolt in the jungles. Some of the societies which have been revived are on estates in the areas most infested by bandits. It has not been rare for the Indian Co-operative Officers to arrive at estates where shootings and arson have taken place the previous night.

There are still some societies on the Register which are inactive and may have to be liquidated but the following figures will show the very real progress made :

Membership increased from	27,415	to	35,333
Share capital	„	„	\$973,962 to \$1,384,924
Reserve Funds	„	„	\$39,421 to \$42,543

Loans to the value of \$153,141 were granted during the twelve months under review. These loans are for necessary and productive purposes. Careful labourers have built up small flocks of goats or acquired a few cattle to improve their economic condition.

In some cases loans are taken to send remittances to relatives in India but this is becoming rarer as the old ties are severed and labourers who have been born in Malaya begin to look upon themselves as Malaysians.

Co-operative Thrift and Loan Societies for Urban Salary Earners.

These societies are financially the strongest in Malaya. There are now 80 societies, an increase of five over the figure for 1948. They are formed amongst salaried workers in every walk of life from the Senior Officers Co-operative Credit and Investment Society to similar societies for lower paid Government and Municipal workers. Their greatest strength is, however, recruited from all grades of the clerical service employed both in government and in commercial firms. Some are formed on a departmental basis such as the Railway, Police and Survey Co-operative Thrift and Loan Societies, Limited, while others are on a communal basis such as the Malay Gurus Co-operative Thrift and Loan Society, Limited or the Jaffnese Co-operative Society, Limited. A society has recently been formed amongst Military base depot personnel in Johore at the request of an officer who had experience of a similar society in Singapore.

Considerable sums have been amassed as the following figures will show :

Total membership	..	..	..	..	32,989
Share capital	..	..	..	..	\$7,361,300
Reserve Fund	..	..	..	..	\$606,503
Loans granted	..	..	..	..	\$2,732,800

The societies have done invaluable work in keeping salaried workers out of the hands of money-lenders. They contain many able men who are taking a leading part in promoting other forms of co-operation for which needs have arisen since the war, such as Housing and a Wholesale Society.

Unions of Co-operative Thrift and Loan Societies.

There are three Unions of Co-operative Thrift and Loan Societies in the Federation of Malaya to which 24 societies are affiliated. Together with the Singapore Union these societies hold an Annual Conference. At this conference resolutions are passed shaping the general policy of the societies concerned for the coming year. In addition to watching the interests of their members they operate as trustees of two Scholarship Funds known as the Sir George Maxwell Memorial Scholarship Fund and the Cavendish Memorial Scholarship Fund. The scholarships are awarded to children of members and are mostly held at English schools in Malaya.

Central Finance.

In Malaya there are no Co-operative Central Banks or Co-operative Banking Unions, as understood in other countries. The only approximation to a Banking Union is to be found where there are separate co-operative societies for labourers on divisions of a large estate or company. In seven areas Banking and Investment Unions of societies have been formed in this way. These Unions invest the surplus funds of the constituent societies but grant no loans.

It is becoming apparent, however, that new needs will require the formation of both rural and urban banks where the surplus funds of societies can be invested and used for the development of more advanced forms of co-operation. These will include marketing, milling and similar processing societies in the rural areas and housing societies in the urban areas. It is hoped to form such unions in selected areas during 1950.

General Purposes Societies.

There were 152 societies of this type in the Federation of Malaya with a membership of 21,121. These societies are primarily thrift societies in which members can deposit small savings which can be withdrawn for necessary purposes. Some are little more than death benefit societies.

These societies cannot be judged solely by their financial transactions. They are a training ground in thrift and afford their members their first experience in saving. They prove the value of joint action and they teach the members to control co-operative societies of a simple and easily understandable type.

Through them advice on agricultural, medical, veterinary and nutritional problems can be easily disseminated. In due course, out of them spring other and more advanced forms of co-operative organisation.

For instance the members of a General Purpose Society at Sungei Sumun near Teluk Anson saved over \$5,000 and started a Co-operative Store. They have an intelligent Chairman and a keen committee. Most of the members are owners of coconut smallholdings. They are now talking of manufacturing and marketing their own copra. If this is successful they will consider installing their own oil press.

Other Types of Rural Societies.

Other types of rural societies include four cattle breeding societies, five co-operative fairs and two better living societies. None of these societies are strong but some of them show signs of developing and improving the economic condition of their members.

The most interesting experiment in Rural Co-operation during the year concerns proposals to form Rice Milling Societies in two large padi growing areas. The carrying out of the scheme will involve a good deal of Government aid for a number of years both in money and expert personnel for the running of the mill. Part of the scheme will provide for the training of members of the families of cultivators in every aspect of the work of milling so that the complete control of the business may ultimately be handed over by Government. The scheme will be built up from primary societies of cultivators through unions of such societies to the main Milling Society. It is hoped that most of the preliminary work necessary for the implementation of this scheme will be completed in 1950.

Consumers Movement.

Consumers co-operation is still weak in the Federation of Malaya. Before the war there were only two Stores. A number of privately owned small sundry shops allowed credit to a remarkable degree

and satisfied the needs of their customers. After the war, from 1945-1948 essential goods were in short supply, black marketing and profiteering were prevalent and credit was no longer available. As a result an interest in Co-operative Stores was stimulated and there are now 14 Stores. In 1948 goods were in much better supply, the small sundry shops once more allowed credit and the loyalty of members to their Co-operative Stores began to weaken. The lack of a wholesale source of supply made it impossible for the Stores to offer more attractive terms than privately owned shops. Experiments in a controlled system of credit failed to stem the ebb.

At the Co-operative Conference in 1948 it was decided to form a Malayan Co-operative Wholesale Society, Limited, and its by-laws were registered in 1949. Financial assistance from Government is being sought in the initial stages and a decision is awaited. It seems certain that if subventions are not granted the Wholesale Society cannot develop with sufficient rapidity to save the majority of the existing Stores. The number of Stores increased from 10 in 1948 to 14 in 1949 but membership increased from 6,313 to 6,527 only and share capital from \$100,675 to \$101,900.

A study of average monthly purchases shows a steady decrease. The coming year will be critical for the consumers movement. There is no doubt that the idea has caught the popular imagination but the existing Stores have to do much of their purchasing from local retail sources. This means that their prices are not always competitive. There has been a remarkable interest in such Stores in the rural areas. It is being realised that they offer one of the best escapes from the complete control of the local shop-keeper who acts as money-lender, middleman and marketing agent in addition. Accumulation of capital is, however, difficult for rural stores.

Producers Marketing and Processing Societies.

Little progress has been made in the formation of Marketing Societies. The utter lack of business knowledge of the Malay peasant makes constant supervision and advice on almost every transaction essential. Secretaries or managers who are capable of keeping the simplest accounts are unobtainable.

The Egg Marketing Societies which had not been revived since the war were liquidated. Former members showed no interest as prices offered by dealers were sufficiently attractive.

Three societies remain, two rubber marketing and one co-operative oil mill. One rubber marketing society is moribund and will probably have to be liquidated. The other rubber society is still giving satisfactory service to its members who are smallholders. They process and sell collectively.

The Oil Mill is a new venture. Copra is purchased and milled into coconut oil of a good standard. The main difficulty encountered is the raising of sufficient capital to bridge the period between manufacture and sale.

Housing Societies.

Two societies have been registered with a membership of 330 and have started to collect capital. Considerable interest is being

shown in many other areas. The main difficulties are the attraction of sufficient funds and the procurement of suitable sites. One society is in a position to start work and the first house is expected to be completed early in 1950.

Women in Co-operation.

It is common to find a few women members of co-operative societies both in the urban and rural areas. There are, however, a few societies consisting entirely of Malay women in the rural areas especially in the Northern Circles. The main difficulty in the past has been the instruction of women's societies by co-operative officers. Convention and custom made this possible only from behind a curtain or sheet which gave the instructor very little opportunity of estimating the effect of his oratory or indeed of ascertaining if he was holding the interest of his audience at all. Times are changing and good progress is now being made. There is no doubt that once Malay women have become interested in the movement extremely rapid development will take place.

Education and Propaganda.

The most valuable and effective propaganda is that given by word of mouth. Literacy is not well developed amongst Malay cultivators.

In conjunction with the Public Relations Department a number of pamphlets and posters were prepared for circulation in the rural areas.

Broadcasts on various forms of co-operation were given.

The Malayan Film Unit produced a film showing the benefits of co-operative marketing. The story was based on the successful Rubber Marketing Society at Ijok.

Proposals were made to Government to implement the Federation of Malaya White Paper No. 50 of 1948 in so far as it recommended co-operative instruction to certain Government officers and village headmen. Financial stringency prevented acceptance of the proposal. In Perlis, however, where suitable funds were available, a very successful course was arranged by the British Adviser and the Commissioner of Lands, Perlis. The Senior Malay Co-operative Officer, Penang, presided over the course and gave the main instruction.

General.

The Co-operative Advisory Board held three meetings during the year. Its recommendations conveyed to Government were :

- (a) The encouragement of Co-operative Marketing of Rubber.
- (b) The establishment of Co-operative Housing Societies.
- (c) The filling of vacancies in the Staff of the Co-operative Department with particular mention of the vacancy for a Chinese Co-operative Officer.
- (d) The provision of financial guarantees for the Malayan Co-operative Wholesale Society.

CHAPTER III.

PUBLIC FINANCE.

The Federal estimates for the year 1949 are summarised as below :

Revenue	\$261,119,484	
Recurrent Expenditure—		
1. Personal Emoluments	\$ 76,095,253	
2. Other Charges	93,276,113	
	<u>169,371,366</u>	
Surplus		\$ 91,748,118
Extraordinary Expenditure	\$ 62,476,181	
Allocation to States and Settlements to meet Estimated Expenditure	88,311,797	
Allocation to States and Settlements to meet Unforeseen Services	446,430	
	<u>151,234,408</u>	
	Deficit ..	\$ 59,486,290

These estimates excluded the recurrent revenue and expenditure of the Malayan Railway but provision of \$16,767,500 was made to meet certain extraordinary expenditure on the Railway of which \$16,627,500 in connection with rehabilitation was to be charged to Loan Funds.

The estimated amount of \$62,476,181 for Extraordinary Expenditure included expenditure to be charged to Loan Funds as follows :

1946 Malayan Union Loan	\$ 6,918,900	
1949 Federation of Malaya Loan	26,739,400	(which included the sum of \$16,627,500 referred to above)
Total ..	<u>\$ 33,658,300</u>	

No provision was made in these estimates for expenditure on Defence and the Emergency other than the full cost of the Regular Police Force (including British Sergeants) and the first three battalions of the Malay Regiment.

The revised estimate of Federal Revenue for 1949 is given below :

Head.	In the Estimates. \$	Revised Estimate. \$	Increase or Decrease. \$
1. CLASS I.—			
(i) Customs	183,620,500 ..	192,245,700 ..	+ 8,625,200
(ii) Excise	4,460,000 ..	4,558,060 ..	+ 98,060
(iii) Forests	72,100 ..	134,753 ..	+ 62,653
(iv) Licences and Internal Revenue	33,885,000 ..	55,817,186 ..	+ 21,932,186
2. CLASS II.—			
(v) Fees of Court or Office, Payments for special services and reimbursements-in-Aid	7,323,190 ..	6,170,153 ..	— 1,153,037
3. CLASS III.—			
(vi) Light, Power, etc.	11,621,100 ..	7,206,272 ..	— 4,414,828
(vii) Posts	6,750,000 ..	8,565,252 ..	+ 1,815,252
(viii) Telecommunications	6,600,000 ..	7,656,038 ..	+ 1,056,038
4. CLASS IV.—			
(ix) Rents on Government Property	259,000 ..	95,443 ..	— 163,557
(x) Interest	3,549,000 ..	3,018,460 ..	— 530,540
5. CLASS V.—			
(xi) Miscellaneous	2,213,500 ..	49,141,100 ..	+ 46,927,600
(xii) Sale of Property	220,300 ..	300,386 ..	+ 80,086
6. CLASS VI.—			
(xiii) Colonial Development and Welfare Fund	545,794 ..	801,691 ..	+ 255,897
	<u>261,119,484 ..</u>	<u>335,710,494 ..</u>	<u>+ 74,591,010</u>

The increase in Customs revenue was mainly due to the fact that receipts from import duties on spirits, malt liquor, etc., exceeded the estimate by nearly \$6.5 millions.

Increased revenue of \$17.4 millions from Income Tax was mainly responsible for the big increase under "Licences and Internal Revenue".

Contributions from His Majesty's Government of \$42.86 millions and from the Government of Singapore of \$4.28 millions accounted for the big increase under "Miscellaneous".

The main decrease was under "Light, Power, etc." and is due to the constitution of the Central Electricity Board on the 1st September, 1949, from which date revenue from sales of electricity, etc. was credited to the account of the Board.

The accounts for 1950 are not yet closed but the provisional total of expenditure on Federal services for 1949 is \$262,481,830 including approximately \$85,000,000 on account of expenditure on Defence services and the Emergency in excess of corresponding expenditure in 1947. Of this amount approximately \$19,000,000 was provided in the original estimates and the balance by supplementary estimates passed during the year.

The expenditure in 1949 on Defence services and the Emergency would have been considerably larger, had not unavoidable delays caused expenditure amounting to approximately \$18.5 millions to be carried over into 1950.

Again the figure of \$262.5 millions above does not include expenditure in 1949 to be charged to Loan Account. The provisional figures of actual expenditure on this account during 1949 are :

1946 Malayan Union Loan	\$ 3,929,634.30
1949 Federation of Malaya Loan	10,877,114.64
Total ..	<u>\$14,806,748.94</u>

The high priority which the engineering services had to give to Defence and Emergency constructional work and the fact that the Emergency situation rendered it necessary to postpone such work in certain parts of the country coupled with delays in arrival of materials from the United Kingdom inevitably led to under expenditure on this account as compared with the original estimate of \$33,658,300.

Income Tax Ordinance, 1947 (No. 48 of 1947).

Income Tax (Amendment) Ordinance, 1948 (No. 11 of 1948).

(See information on 1948).

The Federation Public Debt at the end of 1949 is summarised below :

MALAYA (FEDERATION OF) OUTSTANDING LOANS.

Issue.	Maturity.	Interest Pay.	Outstanding.
<i>External.—</i>			
(1) 3%, 1935 ...	6-15-70 ...	January and December 15th ...	£4,000,000
(8) 3%, 1949 ...	5-15-76 ...	May and November 15th ...	8,050,000
<i>Internal.—</i>			
(2) 4½%, 1931 ...	1- 1-50 ...	June and July 1st ...	\$16,000,000
(3) 3%, 1936 ...	12-15-56 ...	January and December 15th ...	15,000,000
(4) 3%, 1940 ...	9-30-59 ...	April and October 1st ...	20,000,000
(5) 3%, 1941 ...	7- 1-60 ...	June and July 15th ...	10,000,000
(6) 2½%, 1946 ...	7-15-56 ...	June and July 15th ...	12,500,000
(7) 3%, 1946 ...	7-15-66 ...	June and July 15th ...	54,000,000

Special provisions (paragraph numbers refer to issues numbered correspondingly above).

(1) Callable at par at any time from June 15, 1960: on three months' notice. Semi-annual sinking fund of half per cent. per annum from December 15, 1935. Interest payable at Crown Agents for the Colonies, London. The loan and the interest thereon, the property of persons not resident in the Malayan Union will not be subject to any taxes by the Malayan Union.

Bankruptcy.

In the Federation insolvency is of two main kinds—commercial and personal—and in addition to these the Official Assignee deals with certain other business of a legal nature not directly connected with insolvency.

During the year, 38 Receiving and Adjudication Orders were made against firms and individuals engaged in commerce and 14 Wage-Earner's Administration Orders against persons in receipt of a salary or wage of less than \$350 a month. The latter are almost all Government employees.

The total volume of insolvency in the two classes was as follows :

	1949.	1948.
Commercial	38	10
Personal	14	7
	<hr/> 52	<hr/> 17
Total gross liabilities ..	\$763,014.34	\$200,155.54
Total estimated assets ..	\$197,145.28	\$15,934.23
Estimated loss to creditors	74 per centum	92 per centum

It is rare for a person of any race or class to engage in trade or business in his own name; even if he has no partners he prefers to operate under a chop or some other name. For this reason a Registration of Business Names Ordinance is in force to compel the disclosure of proprietors' and partners' names. Failures are usually the result of conditions in the preceding year. This is due to two main causes, namely over-purchasing and endeavouring, due to competition, to trade on too small a margin of profit.

There is no limited period by which a man remains a bankrupt; he may apply for a discharge as soon as his affairs are fully investigated at a Public Examination. In the case of a Wage-Earner's Administration Order, the debtor normally obtains a discharge when he has paid 50 per centum or over of his liabilities which may take between three to five years depending on the size of his debts and his ability to liquidate them by monthly instalments. In all cases the Court has a discretionary power in dealing with the application.



Malay vendors at the Chenon fair,
Kota Bharu.



A Malay Co-operative Shop
in Ulu Langat, Selangor.

Three hundred and seventeen dividends were declared and paid during the year and the amount distributed was \$130,530.58. The majority of these dividends were in respect of pre-war bankruptcies. The highest dividend paid was 100 per cent. and the lowest was less than 10 per cent.

At the close of the year the Bankruptcy Department held on investment a total sum of \$562,871 excluding \$24,187.65 from the Companies Liquidation Account. These are surplus funds not required immediately for payment of dividends. The interest from the investments which ranges from three to four per cent. is credited to Government revenue. The amount of accrued interest in 1949 was approximately \$21,535.

On 31st December, 1949, there were 2,744 undischarged bankrupts and debtors throughout the Federation. A number of these have not been traced and are believed to have left the country or died during the Japanese invasion.

PUBLIC TRUSTEE AND OFFICIAL ADMINISTRATOR.

During 1949, 185 new estates and trusts were accepted; 479 were wound up, leaving in hand under administration at the end of the year 347 estates and trusts, apart from 423 others of a petty nature. Business transacted during the year exceeded \$9,334,000. The value of assets in hand at the close of the year was approximately \$7,494,000, consisting of \$1,535,000 in real estate, \$5,451,000 in trustee investments, \$216,000 cash with bankers and \$292,000 in shares and other movables.

The greater part of the Department's work is still centred at Headquarters in Kuala Lumpur and chiefly in respect of estates and trusts arising in Selangor, Perak, Negri Sembilan and Pahang. The agency at Penang has been replaced by a departmentally-staffed branch office, leaving the agencies at Johore Bahru and Malacca for similar expansion later. In Kelantan the District Officers are ex-officio Assistant Administrators for the purpose of summary administration of small estates of \$500 or less in value.

INCOME TAX.

No amendments to the Income Tax Ordinance were made during 1949, and the rates of tax and the deductions for personal reliefs remained as for 1948.

In the case of individuals, a personal allowance (\$3,000 for a single person and \$5,000 for a married person) is deductible from assessable income to arrive at the chargeable income. Allowances are also made, where the conditions of the Ordinance are satisfied, in respect of children up to nine in number, for life assurance premiums paid, and for obligatory or contractual contributions to approved pension or provident funds. The chargeable income remaining after all proper deductions have been allowed is taxed at varying rates commencing at 3 per cent. on the first \$500 of chargeable income and rising to 30 per cent. on chargeable income

in excess of \$50,000. The following table shows the tax payable at various levels of income :

Assess- able income.	TAX PAYABLE.				
	Single Man.	Married Man (no children).	Married Man (three children).	Married Man (six children).	Married Man (nine children).
\$	\$	\$	\$ c.	\$ c.	\$ c.
3,000	—	—	—	—	—
4,000	35	—	—	—	—
5,000	90	—	—	—	—
6,000	160	35	—	—	—
7,000	240	90	7 50	—	—
8,000	320	160	47 50	13 50	—
9,000	420	240	107 50	57 50	29 00
10,000	520	320	180 00	121 50	81 00
12,000	760	520	345 00	276 00	228 00
15,000	1,180	880	670 00	574 00	505 00
17,500	1,555	1,255	992 50	874 00	802 00
20,000	2,030	1,630	1,367 50	1,247 50	1,157 50
25,000	3,030	2,630	2,280 00	2,120 00	2,000 00
30,000	4,030	3,630	3,280 00	3,120 00	3,000 00
50,000	8,030	7,630	7,280 00	7,120 00	7,000 00
100,000	22,730	22,130	21,605 00	21,365 00	21,185 00

Companies are subject to a flat rate of 20 per cent. on their profits as adjusted for Income Tax purposes. A company resident in the Federation is entitled to deduct tax at this rate from dividends paid to its shareholders.

Negotiations for a double taxation relief arrangement with the United Kingdom were concluded in the early part of the year, and the relevant Order made on the 27th April, 1949. The arrangement is based on a Double Taxation Convention which the United Kingdom concluded with the United States of America in 1945. This Convention was itself based fundamentally on a model drawn up by the fiscal committee of the League of Nations, the principles of which have been widely accepted internationally.

The Income Tax Ordinance provides for the setting up of a Board of Review to hear appeals against assessments. The names of the persons appointed by the High Commissioner as members of the Board were gazetted in June.

Rules prescribing deductions in respect of capital expenditure in computing income derived from the working of a mine or other source of mineral deposits of a wasting nature were drawn up in consultation with the F.M.S. Chamber of Mines. The Rules were gazetted in November as the Income Tax (Mining Operations) Rules, 1949. The Rules are deemed to have come into force on the 1st January, 1948.

The introduction of amending legislation in 1948 delayed the commencement of the assessment work for that year until November, and consequently the department had to deal in 1949 with the bulk

of the 1948 assessments, in addition to making as much progress as possible with the 1949 assessments. Approximately 60,000 return forms were issued for 1948, but these included returns sent to individuals who were found to be entitled to personal reliefs sufficient to relieve them from any liability to tax. It accordingly became possible to restrict the issue of the return forms for 1949, the majority of which were issued in July of that year, to approximately 38,000 and the examination of these returns has proceeded concurrently with the completion of the 1948 assessment work.

The yield of tax for 1949 is expected to be approximately the same as that for 1948, i.e., between \$23 and \$25 million. Some \$21½ million of the estimated yield for 1948 had been assessed by the end of 1949, while approximately \$20¼ million had been collected. The corresponding figures for 1949 are \$16¾ million and \$14 million respectively.

The amount actually collected in 1949, including sums collected by the Colonial Income Tax Office in London on the Federation's behalf, was \$33,067,605. Adjustments will require to be made in due course in respect of the tax assessed and collected in the Federation on behalf of the Colony and vice versa. It is anticipated that the adjustments will result in a net transfer of approximately \$3 million to the Federation, making the total collected approximately \$36 million for 1949.

The filling of the senior posts in the department has continued to present difficulties. These difficulties, coupled with the increase in the volume of work, have made it impossible to proceed with the settlement of liabilities as speedily as is necessary if the arrears brought about by the late start in 1948 are to be overtaken in 1950.

A branch office was opened in Penang in March. The branch is responsible for the issuing of returns and the making of assessments in Penang, Province Wellesley, Perlis, Kedah and the Districts of Krian, Kroh, Selama, Larut and Matang in Perak. It is intended to open other branch offices as soon as trained staff and accommodation become available.

CHAPTER IV.

CURRENCY AND BANKING.

Currency.

The standard currency of the Federation of Malaya is the Malayan dollar with a value of two shillings and four pence and divided into one hundred cents. The currency is issued by a Board of Commissioners of Currency which was established under an agreement signed in 1938 by the Governments of the Straits Settlements and the Malay States. The currency of the country is on a sterling exchange standard and the Commissioners are bound to issue on demand currency notes at the rate of one dollar for two shillings and four pence in exchange for sums in sterling lodged with the Crown Agents for the Colonies in London and to pay on demand the

sterling equivalent of Malayan currency notes lodged with them in Malaya. Under the law the Commissioners can charge commission at the rate of three-sixteenths of a penny for every dollar issued and one farthing in respect of every dollar received.

Provision is made for the establishment and maintenance of a Currency Fund in such a way that its value shall stand at between one hundred and one hundred and ten per cent. of the face value of the currency notes and coin in circulation. There is also provision for making each Government liable to meet any deficiency to the Fund should the assets at any time prove inadequate to meet legal demands upon the Currency Commissioners for the conversion of currency into sterling.

The Currency (Transitional Amendment) Ordinance, 1946, which came into force on 1st April, 1946, appointed the Financial Secretary of the Malayan Union and the Financial Secretary, Singapore, to be the Board of Commissioners of Currency for Malaya.

By proclamations issued on 23rd August, 1948, under the currency legislation in force in the Colony of Singapore, the Settlements of Penang and Malacca and in the States of Kedah and Perlis, and by virtue of section 6 of the Currency Enactments in force in other States, all currency notes issued by and bearing the name of the Government of the Straits Settlements and all currency notes bearing dates prior to 1st July, 1941, were declared to be no longer legal tender in the Federation after 31st August, 1948. Of these pre-invasion note issues amounting to \$238,804,963.95, notes to the value of \$227,656,077.49 had been withdrawn and destroyed by the Currency Commissioners by the end of 1949.

The average amount of currency notes in circulation in December, 1949, including notes in circulation in the Colony of Singapore, and in the Colonies of British North Borneo and Sarawak and in the State of Brunei, amounted to \$402,336,109.

THE FOREIGN EXCHANGE CONTROL.

Introduction.

It may be appropriate to state at the outset that Foreign Exchange Control instituted under the Finance Regulations Proclamation is in the nature of a fence put up, not around the Federation of Malaya and Singapore, but around the group of countries known as the Sterling Area. The purpose of this control is to restrict the movements of capital from the Sterling Area and to endeavour to make the best use of foreign exchange acquired by the Area as a whole for the benefit of its members. Within the Sterling Area there is, generally speaking, no restriction on the movement of funds from one country to another.

Import and Export.

The volume of work to be dealt with by the Department depends, subject to a time lag of, say, six months, on the state of internal and entrepôt trade. As the import and export business has increased since January, 1946, when exchange control was reinstated, so have the numbers of applications to be dealt with increased.

Authorised Banks.

With regard to payments for imports, powers were delegated in 1947 to certain "Authorised Banks", to deal with applications within certain limits, without prior reference to the Exchange Control, thus eliminating much of the delay which had previously been experienced by importers. The following is a list of Authorised Banks in the Federation which are authorised to deal in all foreign currencies :

Name of Bank.
Bank of China
Chartered Bank of India, Australia and China
Eastern Bank Limited
Hongkong and Shanghai Banking Corporation
Mercantile Bank of India Ltd.
Oversea-Chinese Banking Corporation Ltd.
United Commercial Bank Ltd.

Authorised Dealers in Gold.

In addition to the Authorised Banks there are Authorised Dealers in Gold. The following were Authorised Dealers for the year :

Chartered Bank of India, Australia and China
Eastern Bank Limited
Hongkong and Shanghai Banking Corporation
Kim Bian Seng Co., Ltd.
Mercantile Bank of India Ltd.
Yee Shing Co., Ltd.

From the beginning of the year until the alteration in exchange rates of Sterling vis-à-vis the U.S.A. dollar in September, 1949, the price at which gold should be sold or offered for sale to authorised dealers was fixed at :

Gold of 900 fineness and above ..	\$69.40 per fine ounce
Gold of below 900 fineness ..	\$68.55 ,,
English sovereigns	\$17.08 each
English half-sovereigns	\$ 8.54 ,,
United States dollars	\$ 3.50 ,,
Other Foreign coins	\$72.66 per fine ounce

As a result of the alteration in exchange rates referred to, a new price for gold was fixed on the 11th October as follows :

Fine Gold	\$105.34 per fine ounce
English sovereigns	\$ 24.63 each
English half-sovereigns	\$ 12.31 ,,
United States Dollar coins ..	\$ 5.06 per U.S. dollar
Other Foreign coins	\$104.81 per fine ounce

Chinese Family Remittances.

There also exist in the Federation what are known as Chinese Family Remittance Shops. These shops, apart from being holders of clubbed-packet licences issued by the Post Office, are also licensed by the Exchange Control. There were 330 Remittance Shops operating in the Federation during the year. They are permitted to collect from individual Chinese in the Federation for remittance

to China for the maintenance of their families to an amount not exceeding Malayan \$45 per family per month. The sums collected must, in accordance with the terms of the licence, be remitted within a week after collection through an authorised Bank. A total of approximately Malayan \$2,000,000 was remitted to China from the Federation on this account against Malayan \$5,500,000 in 1948.

The sharp drop in the amount from 1948 was not due to any restriction imposed by the Exchange Control, but was mainly due to the disruption of communications in China as a result of the political situation there. There has been no change in the policy towards Chinese family remittances during the year.

Capital Issues.

One hundred and thirty applications were approved during the year for the issue of new capital amounting to Malayan \$15,000,000 in respect of enterprises in the Federation.

Barter Trade.

		Siam (Thailand).		Sumatra.
Exports	.. ..	\$7,369,480	..	\$14,010,863
Imports	.. ..	7,232,056	..	16,840,369

Barter trade with Siam increased by 20 per cent. in 1949 and continues to increase.

The foreign exchange position with regard to Indonesia has been under constant review during the year as a result of the changing political situation in that territory. Barter arrangements have been made in respect of trade with places where no banking facilities are available.

Mecca Pilgrimage.

Travel facilities granted to Pilgrims amounted to £323,265 (Malayan \$2,770,400) for the whole of the Federation, of which approximately £125,000 (Malayan \$1,071,250) represents dues to the Saudi Arabian Government. These facilities were only made available to residents of Malaya.

Banking.

The following is a list of the Banks operating in the Federation at the end of 1949 with the location of their branches :

Ban Hin Lee Bank Limited	..	Penang.
The Bank of China	.. ..	Penang, Kuala Lumpur.
The Batu Pahat Bank Ltd.	..	Batu Pahat.
The Chartered Bank of India, Australia and China	..	Alor Star, Ipoh, Klang, Kuala Lumpur, Penang, Port Swettenham, Seremban, Sitiawan, Taiping, Telok Anson, Butterworth.
The Eastern Bank Limited	..	Penang, Butterworth, Kuala Lumpur.

The Hongkong and Shanghai Banking Corporation ..	Cameron Highlands, Ipoh, Johore Bharu, Kuala Lumpur, Malacca, Muar, Penang, Sungei Patani, Telok Anson.
The Indian Bank Ltd. ..	Kuala Lumpur, Penang
Indian Overseas Bank Ltd. ..	Ipoh, Kuala Lumpur, Penang
Kwong Yik (Selangor) Banking Corporation Ltd.	Kuala Lumpur.
The Malay National Banking Corporation Ltd.	Kuala Lumpur, Temerloh.
The Mercantile Bank of India Limited	Ipoh, Kuala Lumpur, Kota Bharu, Kuala Trengganu, Kuala Lipis, Kuantan, Penang.
Oriental Bank of Malaya Ltd.	Kuala Lumpur, Klang, Seremban.
Oversea Chinese Banking Corporation Limited ..	Alor Star, Batu Pahat, Johore Bharu, Ipoh, Klang, Kuala Lumpur, Kluang, Kota Bharu, Malacca, Muar, Penang, Seremban, Segamat, Taiping, Telok Anson.
The United Commercial Bank Limited	Penang.
Netherland Trading Society ..	Penang.

CHAPTER V.

COMMERCE.

The main functions of the Economic Branch of the Federal Secretariat can be generally stated as follows :

- (a) co-operation with business interests in all matters concerning domestic and foreign commerce ;
- (b) planning and development of industry, production and communications ;
- (c) provision of a technical and commercial advisory service.

The first of these functions assumed great importance during the year under review. It was necessary for the Economic Secretary to pay two visits to Europe in connection with the affairs of the tin industry, and the Economic Adviser to the Commissioner-General led a Malayan delegation to London to attend a meeting of the Rubber Study group. Meetings of the Economic Commission for Asia and the Far East took place in Singapore and a meeting of the Committee of the whole in Bangkok. Attendance at these international meetings and the very considerable amount of work which had to be done in preparation for them took up a great deal of time, but it was nevertheless possible to inaugurate, during the

course of the year, an Advisory Committee on Commerce and Industry which was concerned with all matters of trade other than rubber and tin, and which was able to keep the state of the domestic and foreign markets under constant review.

The second function of planning has also received considerable attention. The establishment of the Central Electricity Board in September was the climax of lengthy planning in which the Economic Branch of the Secretariat had a major share. Other matters handled which resulted in important legislation being passed were rubber packing and petroleum. A considerable amount of preparatory work and planning has also taken place in connection with rice milling, trade marks, road transport and other matters. During the early part of the year it was possible to give full consideration to a report on schemes recommended for grants from funds available under the Colonial Development and Welfare Act, and at intervals during the course of the year proposals were submitted to the Secretary of State for the Colonies in this connection. Owing to the pre-occupation with measures for rehabilitating the country during the first three years after the war it was not possible to initiate the preparation of a comprehensive Development Plan for the country until late in 1949. The first Chapter of this draft Plan dealing with the Social Services has already been published. This will be followed by other Chapters.

As regards the third function it must be confessed that much less has been done in this direction than was hoped. In part this can be accounted for by staffing difficulties but it has also to be remembered that the foreign procurement of sugar, flour and rice still demands unremitting attention on the part of the Economic branch, which has consequently less time to spend on other matters. While some easing of this situation is noticeable, there is no prospect of immediate relief from these responsibilities.

Further matters of commercial interest occurring in 1949 are dealt with below.

Import/Export Control.

The policy of this control is formulated on the recommendations of a Joint Advisory Board on Import and Export Policy. This Board is composed of representatives of the Government of Singapore, the Commissioner-General's staff and of the Government of the Federation. The executive control is exercised by the Comptroller of Customs with an officer in Penang and one in Kuala Lumpur.

(a) Import Control.

Throughout 1949 the aim of import control has been to restrict the expenditure of hard currency to items considered essential for the economic life of the Federation and also to distribute as fairly as possible commodities such as fats, cereals, meat, sugar, etc., which, by reason of world shortages, were allocated to this territory on a quota basis. The allocation of quotas was in most cases related as closely as possible to past records in the trade, the most recent period of unrestricted trade being taken as the basis.



A meeting of the Estate Workers
Co-operative Credit Society on a
rubber estate in Selangor.

The Penghulu, Klang, explaining to school children the organisation of the Federation Government at a Public Relations Photograph Exhibition.



Trade Agreements completed between Western Germany and the Sterling Area and Japan and the Sterling Area enabled the Federation to trade more freely with those countries.

By the publication of Open General Licences the import of all goods other than those commodities under International Emergency Food Council and Ministry of Food Control has been authorised from the Scheduled territories and from neighbouring territories. Specific licences were still required for imports from other soft currency sources; these were however, granted freely. Further relaxation in this direction was under consideration at the close of the year.

(b) *Exports.*

The Prohibition of Exports Order remained the basis of export control. In general the object of the control has been to prevent the export of commodities in short supply particularly materials required for the country's major industries but in the case of rubber and pepper it has also been necessary to use the control for the purpose of stopping foreign exchange leakages by prohibiting export to Burma and Thailand except under licence.

(c) *Barter Trade.*

The unsettled conditions in Indonesia during the year under review restricted barter trade with that territory. At the beginning of the year efforts were made to conduct this trade in accordance with the Agreed Minute on Barter Trade between Malaya and the Netherlands East Indies. However, as conditions deteriorated a reduction of this trade ensued. With the settlement of the Indonesian political question it is hoped that this long established trade will revive.

Barter trade with Thailand has been affected by the direct shipments from that country to hard currency destinations of rubber and tin-ore. The main cause of this change of traditional route of export is the Thai free market in U.S. dollars.

External Trade.

The following are the aggregate values of the external trade of the Federation of Malaya for the years 1948 and 1949:

	1948.	1949.
	\$	\$
Merchandise Imports	854,506,625 ..	931,547,710 ..
Merchandise Exports and Re-exports	1,114,870,622 ..	1,173,505,368 ..
Parcel Post Imports and Exports	8,926,078 ..	6,722,540 ..
Bullion and Specie, Imports, Exports and Re-exports ..	460,743 ..	1,314,893 ..
	<hr/> 1,978,764,068 .. <hr/>	<hr/> 2,113,090,511 .. <hr/>

The following is a summary of balance of trade for the years 1948 and 1949; figures for bullion and specie are excluded :

Foreign (Direct, i.e. excluding Singapore)—

	1948.	1949.
	\$	\$
Total Exports	617,700,971 ..	621,711,756
Total Imports	491,180,114 ..	537,065,649
Favourable Balance of Trade	126,520,857 ..	84,646,107

Local Trade (Federation/Singapore)—

	1948.	1949.
	\$	\$
Total Exports	498,690,885 ..	553,623,148
Total Imports	370,731,355 ..	399,375,065
Favourable Balance of Trade	127,959,530 ..	154,248,083

Total Trade (Direct Foreign and Local)—

	1948.	1949.
	\$	\$
Total Exports	1,116,391,856 ..	1,175,334,904
Total Imports	861,911,469 ..	936,440,714
Gross Trade	1,978,303,325 ..	2,111,775,618
Favourable Balance of Trade	254,480,387 ..	238,894,190

(a) Imports.

The declared value of imports during 1949 amounted to \$936,567,036 as against \$862,095,415 in the previous year, an increase of \$74,471,621 :

	1948.	1949.
	\$	\$
Class I Foodstuffs, etc. ..	420,062,456 ..	421,000,799
„ II Raw materials and unmanufactured goods	68,219,276 ..	76,046,519
„ III Articles wholly or mainly manufac- tured	366,224,893 ..	434,500,392
„ IV Parcel Post	7,404,844 ..	4,893,004
„ V Bullion and Specie ..	183,946 ..	126,322
	<hr/> 862,095,415 .. <hr/>	<hr/> 936,567,036 <hr/>

(b) Exports.

The declared value of exports during 1949 amounted to \$1,176,523,475 as against \$1,116,668,653 in the previous year, an increase of \$59,854,822:

		1948.		1949.
		\$		\$
Class I Foodstuffs, etc.	..	54,641,772	..	71,751,384
„ II Raw materials and unmanufactured goods	.. ..	852,857,995	..	836,672,080
„ III Articles wholly or mainly manufactured	.. ..	207,370,855	..	265,081,904
„ IV Parcel Post	.. ..	1,521,234	..	1,829,536
„ V Bullion and Specie	..	276,797	..	1,188,571
		<hr/>		<hr/>
		1,116,668,653	..	1,176,523,475
		<hr/>		<hr/>

All the principal products of the Federation of Malaya are included in Class II above. The value of tin-ore and tin exported increased by over 70 millions, coconut oil by 15.5 millions and palm oil by 4.5 millions, but there was a decrease of 90 millions in the value of the exports of rubber (including latex).

The following tables show import and export values by principal groups of countries of origin and destination, together with an analysis on a percentage basis. (Figures include bullion and specie):

Imports.		1948.		1949.	
		\$	%	\$	%
Singapore	.. ..	370,915,301	43.03	399,501,387	42.66
United Kingdom	..	134,325,771	15.58	171,147,495	18.27
British Countries elsewhere	.. ..	151,554,800	17.58	76,011,148	8.12
Foreign Countries	..	205,299,543	23.81	289,907,006	30.95
		<hr/>	<hr/>	<hr/>	<hr/>
Total	..	862,095,415	100.00	936,567,036	100.00
		<hr/>	<hr/>	<hr/>	<hr/>

Exports.		1948.		1949.	
		\$	%	\$	%
Singapore	.. ..	498,967,682	44.69	554,811,719	47.16
United Kingdom	..	103,987,765	9.31	90,872,750	7.72
British Countries elsewhere	.. ..	78,739,120	7.05	82,192,013	6.99
Foreign Countries	..	434,974,086	38.95	448,646,993	38.13
		<hr/>	<hr/>	<hr/>	<hr/>
Total	..	1,116,668,653	100.00	1,176,523,475	100.00
		<hr/>	<hr/>	<hr/>	<hr/>

The following table shows the quantity and value of the principal exports from the Federation during 1948 and 1949 :

QUANTITY AND VALUE OF THE PRINCIPAL EXPORTS DURING 1948
AND 1949.

			1948.		1949.	
Tapioca, pearl	{	Tons ..	13,636 ..	11,989
				Value ..	\$ 6,877,167 ..	\$ 3,542,973
Swine	{	Nos. ..	96,287 ..	115,858
				Value ..	\$ 6,325,811 ..	\$ 6,442,260
Pineapples, canned	{	Cases ..	90,268 ..	191,395
				Tons ..	2,325 ..	5,846
			{	Value ..	\$ 2,154,702 ..	\$ 3,827,122
				Tons ..	27,597 ..	36,050
Arecanuts	{	Value ..	\$ 9,301,485 ..	\$ 12,163,934
				Tons ..	20,406 ..	20,808
Copra	{	Value ..	\$ 10,817,004 ..	\$ 9,919,995
				Tons ..	28,213 ..	46,294
Coconut Oil	{	Value ..	\$ 25,211,779 ..	\$ 40,804,719
				Tons ..	48,107 ..	52,100
Palm Oil	{	Value ..	\$ 31,601,639 ..	\$ 36,127,111
				Tons ..	4,065 ..	9,092
Palm Kernels	{	Value ..	\$ 1,134,995 ..	\$ 3,387,655
				Tons ..	731,878 ..	709,980
Rubber (including Latex)			{	Value ..	\$680,036,690 ..	\$589,634,698
				Tons ..	18,685 ..	36,291
Tin-ore	{	Value ..	\$ 91,402,423 ..	\$138,399,169
				Tons ..	28,394 ..	30,848
Tin	{	Value ..	\$129,279,737 ..	\$153,050,025
				Lbs. ..	738,716 ..	2,387,947
Tea, black	{	Value ..	\$ 603,132 ..	\$ 2,311,483
				Tons ..	6,814 ..	10,077
Fish, fresh	{	Value ..	\$ 3,671,938 ..	\$ 4,874,781
				Tons ..	70,752 ..	214,075
Iron-ore	{	Value ..	\$ 612,223 ..	\$ 3,023,793
				Tons of 50		
Saw-logs	{	c. ft. ..	34,071 ..	40,853
				Value ..	\$ 1,603,400 ..	\$ 2,544,170
Sawn timber (excluding Teak)	{	Tons of 50		
				c. ft. ..	35,449 ..	44,433
			{	Value ..	\$ 3,442,945 ..	\$ 5,269,805
				Tons ..	104,054 ..	108,940
Firewood	{	Value ..	\$ 1,112,351 ..	\$ 1,361,005

(c) *Foreign Trade.*

The value of direct foreign imports including transhipments on "through bills of lading" was \$537,065,649 or 57.3 per cent. of the import trade. An analysis showing the countries of origin appears below. The United Kingdom was the principal direct source of supply.

The value of direct foreign exports and re-exports was \$621,711,756 or 52.8 per cent. of the total value of exports and re-exports. An analysis showing the countries of destination is given below. The declared values of exports and re-exports to the United Kingdom and U.S.A. were \$90,872,750 and \$219,852,644 respectively.

(d) BREAKDOWN OF IMPORTS.

Countries.	Total for 1948. \$	Total for 1949. \$
United Kingdom	134,325,771	171,147,495
<i>British Countries.—</i>		
Eire	54,101	— *
Other British Countries in Europe ..	—	—
Cyprus	305,794	342,122
Mauritius	21,837,033	6,217,811
Union of South Africa	964,571	2,032,585
Other British Countries in Africa ..	928,006	895,702
Canada	5,903,465	4,616,675
Other British Countries in America ..	234	25,317
Pakistan	17,097	101,384
Union of India	10,822,282	16,897,969
North Borneo	169	—
Brunei	161	—
Burma	70,727,800	— *
Ceylon	1,333,542	1,346,308
Hong Kong	8,287,078	7,336,625
Palestine	849	—
Sarawak	21	176
Other British Countries in Asia ..	81,787	1,049,992
Australia	29,755,537	33,799,701
New Zealand	516,635	1,307,941
Other British Countries in Australasia	8,131	—
Tasmania	10,507	40,840
<i>Foreign Countries.—</i>		
Austria	322,561	547,028
Belgium	7,505,620	6,139,566
Burma	—	69,668,792*
Czechoslovakia	876,131	609,926
Denmark	1,427,197	2,797,608
Eire	—	1,578*
Finland	263,378	263,845
France	1,582,162	2,514,638
Germany	363,289	2,872,125
Greece	—	8,453
Hungary	65,565	378,616
Italy	2,203,059	4,845,925
Luxemburg	29,496	267,069
Netherlands	3,938,031	6,073,011
Norway	880,822	599,491
Poland	6,272,969	51,602
Portugal	51,023	93,556
Russia	16,469	—
Spain	109,206	44,072
Sweden	2,284,037	2,439,603
Switzerland	551,924	419,534
Other Countries in Europe	—	175,681
Egypt	13,862,842	16,045,775
Morocco	—	34,095
Portuguese East Africa	1,023	—
Abyssinia	11,720	—
Algeria	122,509	—
Tunisia	573,686	—
Other Countries in Africa	412,763	117,565

* Eire and Burma were classified as "Foreign Countries" w.e.f. 1-1-49.

(d) BREAKDOWN OF IMPORTS—(cont.).

Countries.	Total for 1948. \$	Total for 1949. \$
<i>Foreign Countries—(cont.)</i>		
United States of America	26,699,857	26,146,617
Mexico	52,695	20,762
Other Countries in North America ..	6	10,342
Cuba	11,634	—
Argentine Republic	5,304	8,023
Brazil	2,939,083	278,738
Chile	172,799	1,063
Other Countries in South America ..	3,308	69
Arabia	20,737	7,040
China	13,051,466	14,217,051
French Indo-China	4,970,463	569,163
Japan	191,312	2,670,869
Formosa	1,649,810	3,574,082
Indonesia	61,597,740	62,413,227
Iran	211,805	941,347
Philippine Islands	3,316,847	292,009
Siam	46,126,905	61,137,821
Iraq	257,850	159,454
Syria	191,894	356,430
Other Countries in Asia	100,546	45,981
Korea	—	—
Turkey	—	47,764
Total ..	491,180,114	537,065,649

(e) BREAKDOWN OF EXPORTS AND RE-EXPORTS.

Countries.	Total for 1948. \$	Total for 1949. \$
United Kingdom	103,987,765	90,872,750
<i>British Countries.—</i>		
Eire	256,464	— *
Other British Countries in Europe ..	105	120
Cyprus	1,550	78,486
Mauritius	6,063	32,061
Union of South Africa	3,497,329	3,804,089
Other British Countries in Africa ..	664,639	154,014
Canada	27,708,770	22,369,788
Other British Countries in America ..	6,662	18,091
Pakistan	1,761,585	4,440,431
Union of India	23,741,913	28,687,977
North Borneo	5,628	—
Brunei	1,723	—
Burma	7,330,793	— *
Ceylon	561,031	6,272,150
Hong Kong	7,967,694	8,814,553
Palestine	1,100	—
Sarawak	83,436	31,070
Other British Countries in Asia ..	53,465	132,299
Australia	2,642,080	6,117,985
New Zealand	2,447,090	1,235,567
Other British Countries in Australasia	—	3,332

* Eire and Burma were classified as "Foreign Countries" w.e.f. 1-1-49.

(e) BREAKDOWN OF EXPORTS AND RE-EXPORTS—(cont.).

Countries.					Total for 1948. \$	Total for 1949. \$
<i>Foreign Countries.—</i>						
Austria					22,132	1,068,239
Belgium					6,893,075	6,301,738
Burma					—	8,547,642*
Czechoslovakia					1,989,477	948,457
Denmark					4,622,313	3,586,427
Eire					—	335,218*
Finland					2,237,705	1,013,019
France					24,864,993	26,157,527
Germany					23,664,057	23,677,589
Greece					101,117	95,180
Hungary					498,423	855,132
Italy					16,739,874	18,691,454
Netherlands					8,914,796	24,262,920
Norway					1,763,651	2,004,340
Poland					3,132,296	5,279,716
Portugal					921,004	344,266
Russia					43,606,785	28,675,302
Spain					1,644,210	1,607,873
Sweden					7,089,977	5,708,906
Switzerland					147,137	226,164
Yugoslavia					414,993	142,160
Roumania					414,286	1,877,776
Other Countries in Europe					2	12,600
Egypt					2,330,909	3,197,751
Morocco					—	—
Portuguese East Africa					5,920	—
Other Countries in Africa					360	847,244
United States of America					230,955,814	219,852,644
Mexico					4,070,891	2,073,915
Other Countries in North America					6,438	32,844
Cuba					44,322	134,800
Argentine Republic					1,241,424	2,927,819
Brazil					807,234	449,631
Chile					460,861	1,215,511
Colombia					—	—
Uruguay					—	—
Venezuela					—	—
Other Countries in South America					1,122,329	1,865,942
Arabia					52,962	65,172
China					372,760	1,550,945
French Indo-China					22,158	78,201
Japan					9,560,079	16,317,451
Korea					—	559,016
Indonesia					17,601,717	16,094,467
Philippine Islands					23,809	119
Siam					11,341,040	15,969,283
Iraq					198,087	363,564
Syria					28,453	182,337
Other Countries in Asia					6,000	108,006
Turkey					5,038,216	3,321,619
Formosa					—	19,067
Total					617,700,971	621,711,756

* Eire and Burma were classified as " Foreign Countries " w.e.f. 1-1-49.

Customs and Excise Revenue.

The revenue collected by the Customs and Excise Department in 1949 from all sources amounted to \$201,117,449.74. Of this sum \$197,375,896.04 represented Federal Revenue and \$3,741,553.70 represented State and Settlement Revenue.

Revenue for previous years amounted to :

1946 \$ 78,116,397 for the period 1st April to 31st December only.

1947 \$137,540,542

1948 Federal \$179,455,701 State \$3,000,330.

In 1946 and 1947 all revenue was credited to Malayan Union account.

The collections under the main heads during 1949 were as follows :

Federal Revenue.				1948.		1949.	
				\$		\$	c.
Export duties	..	..	..	66,082,858	..	71,502,227	78
Additional duty on rubber	..	..		3,890,843	..	4,534,546	49
Additional duty on tin and tin-ore	..			39,334	..	356,032	76
Import duties	..	..	..	104,978,512	..	115,852,892	67
Excise revenue	..	..	..	4,179,301	..	4,558,059	74
Other fees	..	..	..	170,612	..	280,436	38
Rents on Government property	..			104,351	..	63,721	69
Miscellaneous	..	..	..	9,890	..	227,978	53
Total Federal Revenue				179,455,701	..	197,375,896	04
State Revenue.							
Toddy Shops	..	..	..	2,520,872	..	3,082,063	11
Licences	..	..	..	479,458	..	659,490	59
Total State Revenue				3,000,330	..	3,741,553	70
TOTAL REVENUE				182,456,031	..	201,117,449	74

Hence revenue for 1949 shewed an increase of \$18,661,418.74 or 10 per cent. over 1948.

(a) Import, Export and Excise Duties.

There were only two alterations to the Export tariff during the year :

- (i) the additional duty on tin and tin-ore was raised from 4 cents to 30 cents per picul with effect from 1st January, 1949 ; and
- (ii) the additional cess on rubber was raised from one-quarter cent per lb. to two-fifths cents per lb. with effect from 15th August, 1949.

There were no alterations in the Import or Excise tariffs.

Export duties collected were :

	1948.	1949.
	\$	\$ c.
Rubber	36,926,351 ..	32,585,673 23
Tin and tin-ore	29,712,009 ..	38,865,167 69
Palm oil	1,522,063 ..	1,804,072 22
Palm kernels	11,228 ..	189,633 32
Copra	549,947 ..	1,310,169 08
Coconut oil	920,413 ..	1,084,759 33
Miscellaneous	371,024 ..	553,332 16
Total Export Duties ..	<u>70,013,035</u> ..	<u>76,392,807 03</u>

Until 1st April, 1949, Excise duties, corresponding to the customs export duties, were collected on all exports from Penang Island of rubber, palm oil, copra and coconut oil on which the customs export duty had not already been paid on the mainland. Import duties were collected throughout the year on intoxicating liquors, tobacco and petroleum, all other imports being free of duty. The revenue derived on the items mentioned above and collected in Penang Island has been included in the respective items of revenue set forth above.

(b) *Penang Island.*

On the 1st April, 1949, the Customs Duties (Penang) Ordinance, No. 11 of 1949, and the Rubber Excise (Penang) Ordinance, No. 12 of 1949, came into force.

By virtue of the Customs Duties (Penang) Ordinance, the Island of Penang and all adjacent islands lying nearer to Penang Island than to the mainland became a free port area and all classes of dutiable goods, excepting intoxicating liquors, tobacco and petroleum, imported into or exported from the area were exempted from the payment of Customs import or export duties.

This action consolidated in one Ordinance a position that had previously been governed by the Customs Duties (Penang Island) Order, 1946, the Excise Duties (Miscellaneous) (Penang Island) Order, 1947, and the Excise Duties (Rubber) (Penang Island) Order, 1947.

(c) *Toddy.*

There were 80 Government Toddy Shops operating at the end of the year. There were no Government Toddy Shops in the States of Kelantan, Perlis, and Trengganu; in Trengganu, however, three Public Toddy Shops were operated under licence. The policy, followed since the liberation, of not re-opening Estate Toddy Shops was continued during 1949.

Gross revenue from Government Toddy Shops amounted to \$3,074,528.47; nett revenue to \$1,876,582.04; in addition the sum of \$7,534.64 was collected from the Public Toddy Shops in Trengganu.

The retail price of toddy was 20 cents per pint.

(d) Distilleries.

There were 15 distilleries operating at the end of the year compared with 18 in 1948; Excise duty collected during 1949 on samsu released from these distilleries amounted to \$4,403,276.80, an increase of \$305,863.53 over the revenue collected from this source in 1948.

The total output of spirit—ex-still—of these distilleries during the year was 237,686 gallons.

There were no breweries in the Federation during 1949.

(e) Preventive.

The Customs Department instituted 4,639 successful prosecutions during 1949 against offenders under the Customs Enactments, Excise Enactments, Opium and Chandu Proclamation and other Enactments, resulting in \$732,770.25 being inflicted in fines of which \$245,701.73 was paid. A sum of \$29,535.65 was collected in respect of compounded fines for minor offences against the Customs Enactments and \$227,068.57 was received from the proceeds of auctions of goods forfeited under the various Enactments; these sums were paid into Revenue.

Rationed Commodities.

In the rationed commodities of rice, flour and sugar, the Federation of Malaya shared a common allocation with the Colony of Singapore. Rice remained under the International Emergency Food Control Allocation Scheme. Procurement of supplies against the Federation of Malaya's portion of the joint allocation was carried out by the Joint Supply Board, Singapore. Ships were routed to Malayan ports to ensure proper and efficient internal distribution. Landing, storage and distribution to wholesalers were carried out by the commercial agencies under agreement to Government. The main direct imports of rice, flour and sugar came through Singapore, Penang and Port Swettenham. A few shipments were made direct to Tumpat and Telok Anson, but the opportunities were few and far between, as these and other coastal ports were not in a position to accommodate the ocean carriers generally employed in the trade.

The system of distribution operating through licensed distributors, wholesalers and retailers and linking the public to licensed retailers was continued as before. In December, 1949, the price margins to distributors, wholesalers and retailers were reduced to 60 cents, 40 cents and 45 cents per picul respectively.

Rationing.

Rationing continued in respect of rice and sugar up to 11th July, 1949, when the latter commodity was removed from the list of rationed articles. Flour has remained off the ration since the beginning of the year. All the three commodities remained price controlled until the end of August, 1949. On 1st September, 1949, the Price Control on sugar was lifted.

Ration scales and controlled prices were as follows :

		Ration scale per head.	Effective date.	Price per kati.	Effective date.
Rice	.. ..	2½ Katties ..	Beginning 1949 ..	30 cents ..	1-1-49
		2½ Katties ..	4- 4-49 ..	28 cents ..	2-5-49
		+ ½ Katty ..			
		Bonus ..	1 -9-49 ..	26 cents ..	28-11-49
		3 Katties ..			
		+ ½ Katty ..			
		Bonus ..			
Sugar	.. ..	7½ Tahils ..	Beginning 1949 ..	28 cents ..	1-1-49
		8 Tahils ..	18- 4-49 ..	Off Price Control	1-9-49
		+4 Tahils ..			
		Bonus ..			
		Derationed ..	11- 7-49		
Flour	.. ..	Derationed ..	16- 2-48 ..	25 cents ..	1-1-49
				23 cents ..	10-11-49

Government Purchase of Local Padi.

The only item of local produce purchased by the Department was rice from local padi. The Government was not involved in the actual padi procurement under the new Contract. The Government bought local undermilled rice at \$25.75 per picul, ex-mill. To control transport charges the millers entered into fixed contracts for the delivery to Government Agents godowns. This arrangement eliminated much accountancy in respect of padi purchase, buyers bonus, buyers transport charges, and loss in weight.

The minimum price guaranteed by Government for padi procurement remained at \$14.20 per picul ex-field and \$15.00 per picul at mill door. The internal movement control of rice and padi within Malaya was removed in order to meet with the new arrangement.

Under the new contract the millers could either elect to produce 65 per cent. in terms of rice of all padi bought or they could be assessed. Most of them preferred to work at 65 per cent. extraction. In either case any rice milled over 65 per cent. together with the by-products were the property of the miller.

		Padi purchased by Government in tons.	Extraction.	Equivalent rice in tons.
1946	.. ..	24,020	60 %	14,412
1947	.. ..	87,446	60.7%	53,102
1948	.. ..	142,605	63 %	89,841
1949	.. ..	130,498	65 %	84,824

Price Control.

Price control in certain items continued during the year but owing to increased supply it was possible to remove, on the 5th July, 1949, milk, butter and bread from the Schedule of Price Controlled Articles, leaving only rice (including padi), flour and tinned pineapple on the list. Sugar was removed from the Price Controlled list on 1st September, 1949.

With the devaluation of the pound sterling in September, 1949, there was a tendency for the prices of all commodities to rise. Government immediately took action under the Emergency (Price Control) (Amendment) Regulations, 1949, and Price Control Order, 1949, by which maximum prices of all goods other than rubber were fixed at prices prevailing on the 17th September, 1949. This order remained in force for a period of 14 days, from 21st September, 1949, and appeared to have a salutary effect on the upward trend of prices. Only one case of infringement against this order was reported.

Rubber.

The year 1949 was an eventful one for the rubber industry in Malaya but only towards the end of it were prices reasonably satisfactory. During the first five months the price of R.S.S. Spot in Singapore remained fairly static in the region of 36.50 cents per lb. compared with an average price during 1948 of 42.40 cents. During last week in May prices began to fall still further and went as low as 31.12 cents in the early part of June. Throughout July they remained in the region of 33 cents, at which price many producers were unable to make a profit and the industry was faced with the problem of reducing its costs. This led to a decision by the Malayan Planting Industry Employer's Association to reduce the bonus rates paid to tappers which had been fixed when the price of rubber was 41 cents a pound. An Arbitration Board was appointed to investigate the consequent dispute over cuts in tappers earnings between the M.P.I.E.A. and several labour unions. Fortunately the effect of devaluation raised the price of rubber to 44 cents on 19th September and the M.P.I.E.A. was able to cancel its reductions. During the period subsequent to devaluation there were further gains and the market closed on 31st December at just over 50 cents.

The better price has given the industry a breathing space in which to set about improving its competitive position in relation to synthetic rubber. Important steps have been taken to this end. A five-year programme of increased research and development on behalf of natural rubber has been adopted, to be financed from the Malayan Rubber Fund, but guaranteed by the Government. The Malayan Rubber Fund derives its income from a cess of 0.25 cents per lb. on rubber exports and not only its revenue but the major part of its reserves are to be used to help finance the development programme, which is being carried out by the Rubber Research Institute, the British Rubber Development Board and the British Rubber Producers Research Association in their different spheres. The rubber industry has in the past sponsored and paid for continuous activities in the fields of development and research, but never on the present scale. Not only is there the stimulus of a rival—synthetic rubber—to challenge the pre-war undisputed supremacy of natural rubber, but there is also the prospect of very great expansion of the rubber industry as a whole as new uses which were formerly only experimental appear likely to be adopted on a commercial scale. These developments have given great encouragement to the industry, while the guarantee given by

Government to the programme is a measure of the importance attached to it. The rubber industries in other Commonwealth countries are either levying or considering the possibility of levying a cess in support of the programme, but the main burden of it quite naturally falls on this country.

In addition to this, the rubber industry has undertaken a publicity campaign in the U.S.A. designed to make known the merits of natural rubber in this most important market. An additional cess of 0.15 cents per lb. has been fixed to finance this campaign.

Various other events of importance need to be mentioned. An important conference of research workers from all major producing countries met in Kuala Lumpur in September on the initiative of the Rubber Research Institute to consider the problems relating to the preparation and grading of natural rubber. One result of this conference was the setting up of a Technical Organization of Natural Rubber Producers in Malaya, whose objective will be to promote in every possible way improvement of the quality of natural rubber. Secondly, at the request of the industry legislation was prepared and placed before the Legislative Councils of both the Federation of Malaya and Singapore to enable the industry to control the packing and grading of rubber for export. By this means it should be possible to remove the causes of complaints by buyers of Malayan rubber, and to build up its reputation in the world's markets. Thirdly there are now considerable expectations of being able to strengthen the internal organization of the Malayan rubber industry. In the past, due to weakness in this respect the industry has not always been able to speak with the unanimity and consequent authority that its position in the world market warranted.

Tin.

Exports of tin-in-ore from the mainland of the Federation totalled 55,448 tons as compared with 45,739 tons in 1948, 26,927 tons in 1947 and 84,751 tons in 1940. The value of the 1948 exports was \$203,680,836. The tin-in-ore was all smelted by the smelters of the Straits Trading Co. Ltd., and the Eastern Smelting Co. Ltd. at Singapore and Penang. Imports of tin-ore into the Federation and Singapore for smelting were 9,061 tons in 1949 as compared with 4,848 tons in 1948 and 4,559 tons in 1947. Exports of tin metal from the Federation and Singapore totalled 54,783 tons in 1949, as compared with 47,214 tons in 1948 and 32,072 tons in 1947. Of the 1949 exports 43,901 tons were shipped direct to the U.S.A. These direct exports were valued at over 220 million dollars and, inasmuch as 43,901 tons of the total exports were shipped to the United States, contributed greatly to the dollar earning capacity of the sterling area.

The amount of export duty paid on tin-in-ore was \$38.0 million as compared with \$29.4 million in 1948, \$13.5 million in 1947 and \$4.9 million in 1946. Exports of tin metal were controlled until 30-6-49, by allocations made by the Combined Tin Committee in Washington. All tin exported from Malaya up to 15-11-49, was purchased by the United Kingdom Ministry of Supply.

The price of tin at the beginning of the year was £554 a ton ex Malaya. On 11-7-49, owing to increased handling costs incurred by the Ministry of Supply, the price was reduced to £553.10 per ton and this price ruled until 18-9-1949. Following the revaluation of sterling an agreement was made by which an average price was paid by the Ministry of Supply for all tin purchased and sold to the Ministry of Supply during the period between the revaluation of the pound sterling and the opening of the tin metal market in Singapore. This market opened on the 16th November, 1949, but owing to lack of bids there were no sales on that date. The market commenced to operate effectively on the 17th November, 1949. On this date the Singapore price was \$325.62 per picul but this declined to \$285 at the end of December at which level it appeared to be more or less stable. This price of \$285 per picul may be usefully compared with the price of \$280 ruling at the end of 1948 (i.e., pre-revaluation).

The Emergency continued throughout the year and the industry suffered a number of losses of life and some small damage to property, but the progress of rehabilitation was not seriously hindered. The real effects of the Emergency will rather be felt in the future due to the almost complete cessation of prospecting, particularly in outlying districts. Nevertheless, the industry made considerable progress during the year as is indicated by the increase in production from 44,815 tons in 1948 to 54,910 tons in 1949.

The industry is still faced with the problem of its future position. World consumption of tin is estimated to be less than world production, and this has been reflected in a reduced price after the opening of the tin metal market in London and the tin market in Singapore and Penang. The United States continued during the year to pursue its policy of building up a strategic stockpile of tin metal and negotiations were opened for the purchase of quantities of metal for the stockpile between America and the various producing countries.

There was a meeting of the Tin Study Group in June, 1949, at which it was decided that a Working Party should be set up to draw up the case for a Commodity Control Agreement for tin and a suggested form of agreement. This Working Party met on the 2nd November, 1949, and prepared these documents for submission to and consideration at a further meeting of the Study Group which it is proposed will be held early in 1950. Representatives of the Malayan industry attending these negotiations and meetings and a representative of the Government of the Federation attended some of the negotiations and the meeting of the Tin Study Group in an advisory capacity on the British Colonial and Dependent Territories delegation.

Registration of Companies.

The Companies Ordinance, No. 49 of 1940, of the Straits Settlements, was applied to the Malayan Union (now the Federation of Malaya) by the Companies Ordinance, No. 13 of 1946, which came into force on the 4th day of July, 1946. The latter Ordinance was slightly amended by the Companies (Amendment) Ordinance, No. 25 of 1946. Section 80 of the principal Ordinance was amended

by the Companies (Amendment) Ordinance, No. 8 of 1948, by which a charge on land is deemed to be created from the date of registration of the charge with the Land Office.

The Companies (Winding-Up) Rules, 1946, were brought into force on the 9th day of October, 1946.

Subsidiary legislation relating to Forms, etc., under the Companies Ordinance was published in *Gazette* Notification No. 1331 of the Government *Gazette* dated the 31st January, 1948.

The Life Assurance Companies Ordinance, No. 38 of 1948, and the Fire Insurance Companies Ordinance, No. 39 of 1948, were brought into force on the 16th December, 1948.

The Trust Companies Ordinance, No. 33 of 1949, was brought into force on the 28th September, 1949.

The draft Ordinance relating to the position of companies formed and registered during the Japanese Occupation is still under consideration by the Attorney-General, Federation of Malaya.

The Companies Ordinance, No. 49 of 1940, is based on the Companies Act, 1929, which has since been replaced by the Companies Act, 1948. Revision of the local Companies Ordinance to conform with the amendments incorporated in the new Act, is now receiving attention.

Ninety local companies, that is companies incorporated in the Federation of Malaya, and fifty-six new foreign companies, that is companies incorporated in Singapore or other territory outside the Federation, were registered in 1949.

The number of local companies on the Registers as at 31st December, 1949, was 1,060. These figures include the following companies :

- | | |
|---|---------------|
| (a) Under investigation or pending war claims | |
| not carrying on business | 28 companies. |
| (b) Formed and registered during the | |
| Japanese Occupation | 88 „ |
| (c) In liquidation or under removal | 37 „ |

The number of foreign companies on the Registers as at 31st December, 1949, was 943. These figures include the following companies :

- | | |
|---|---------------|
| (a) Pending registration or under investigation | 16 companies. |
| (b) Companies owned by Japanese | 19 „ |

Registration of Businesses.

The Registration of Businesses Ordinance, 1947, came into effect on 1st April, 1947, the schedule of businesses requiring registration being confined to nine types. The details of the businesses and the total number registered under each type during the year are as follows :

Type of Business.	Total number registered.
(i) Money-lending	187
(ii) Mining Businesses employing more than twenty persons	121
(iii) Rubber estates exceeding 50 acres in extent	120

Type of Business.	Total number registered.
(iv) Pawn shops	13
(v) Goldsmiths and Jewellers	93
(vi) Sundry goods and provisions businesses ..	1,000
(vii) Importers and exporters, commission agents	176
(viii) Saw-mills, timber and firewood merchants	69
(ix) All other businesses	2,521
	<hr/> 4,300 <hr/>

A total of 5,870 new applications for registration were received during the year as against 22,515 in 1948 and 13,313 in 1947 of which 4,300 were registered by the end of the year as against 21,697 and 7,279 during 1948 and 1947 respectively.

CHAPTER VI.

PRODUCTION.

AGRICULTURE.

Rubber.

The following table shows comparative acreages under rubber in the Federation since 1940 :

RUBBER PLANTED ACREAGES.

Year.	Estates. Acres.	Small-holdings. Acres.	Total. Acres.
1940	2,082,293 ..	1,329,791 ..	3,412,084
1946	1,895,814* ..	1,319,436* ..	3,215,250*
1947	1,934,106 ..	1,383,193 ..	3,317,299
1948	1,952,347 ..	1,410,178 ..	3,362,525
1949	1,970,579 ..	1,394,881 ..	3,365,460

Production figures for the Federation since 1940 are given below. Before the war, rubber regulation was in force and in 1940 the average release for the year of the basic quota was $88\frac{3}{4}$ per cent. In 1941, 100 per cent. release was permitted, but statistics are available only from January to October of that year.

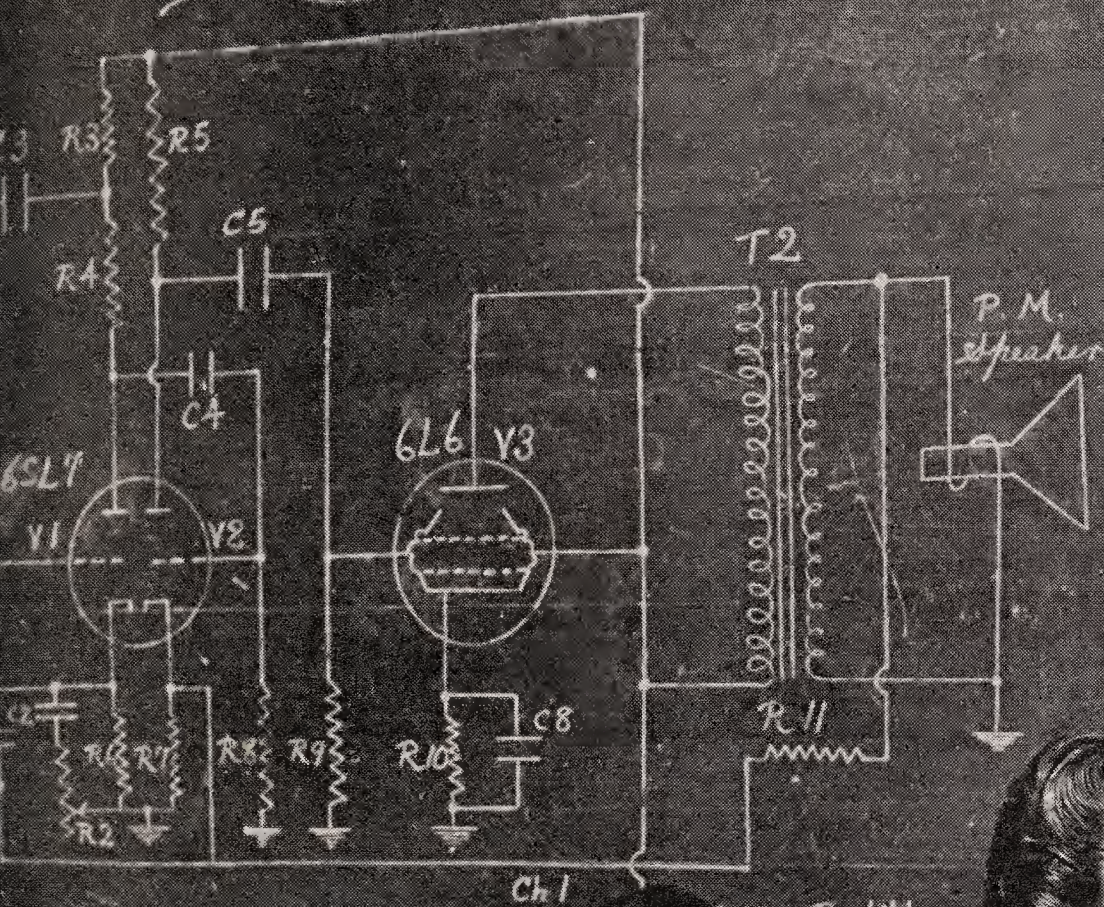
RUBBER PRODUCTION (IN TONS).

Year.	Estates.	Small-holdings.	Total.
1940	331,589 ..	212,726 ..	544,315
1941†	307,424† ..	188,002† ..	495,426†
1946	173,515 ..	229,692 ..	403,207
1947	359,865 ..	285,364 ..	645,229
1948	402,907 ..	294,071 ..	696,978
1949	400,009 ..	270,248 ..	670,257

* Incomplete.

† January-October.

5 Watts amplifier with feedback



What is the
made up of two
long by 10 cm

The capacity of
air as the dielectric

$$C = \frac{A}{4\pi D} \text{ Where}$$

$$A = 10 \times 12 =$$

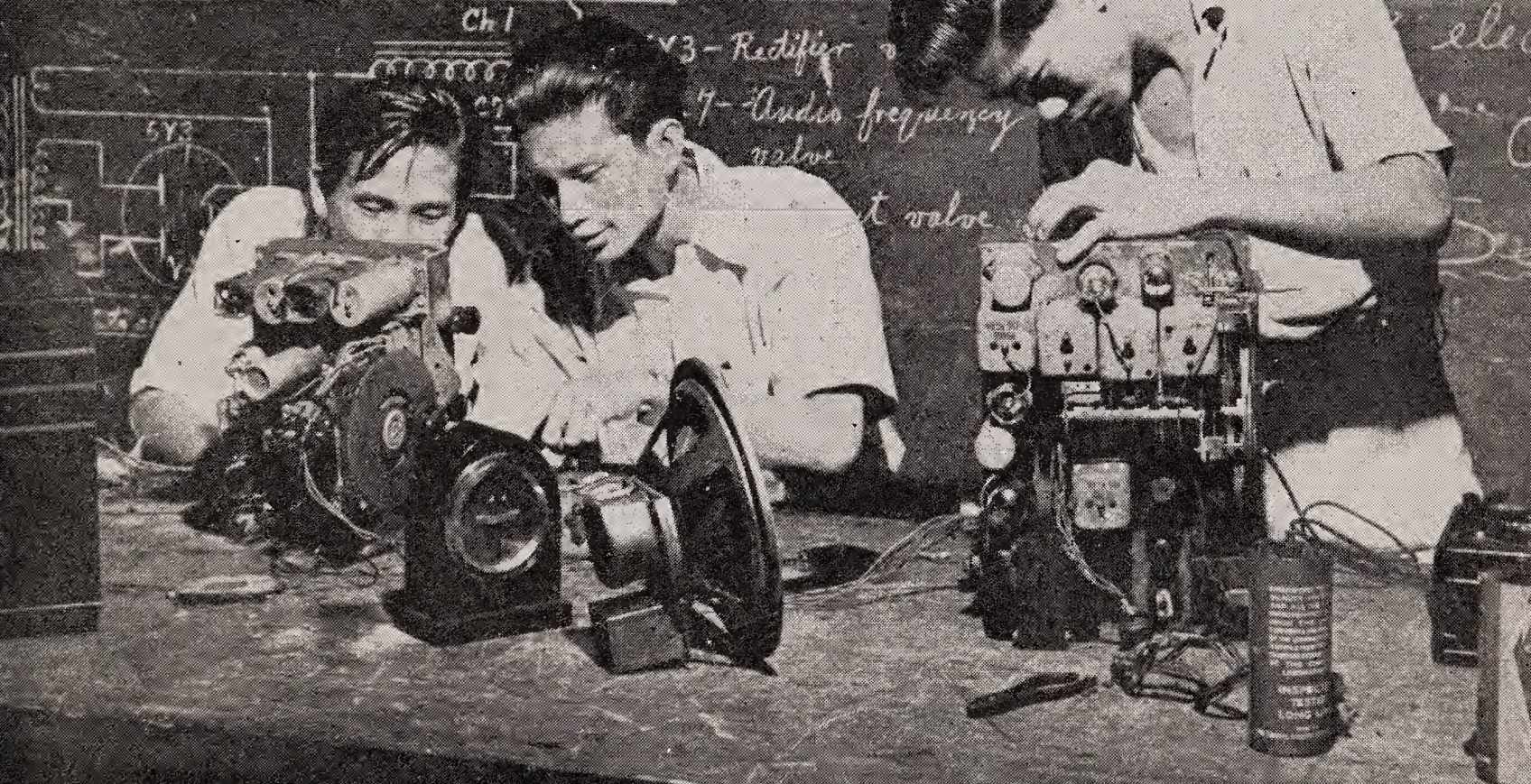
$$D = 0.01 \text{ cm}$$

$$C = \frac{120}{4 \times 0.01}$$

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Students at work on radio sets at the Trade School, Kuala Lumpur.



The Pro-Chancellor of the University of Malaya, the Hon'ble Dato Onn bin Ja'afar, speaking at the Foundation Day Ceremony.

Pan-Malayan imports and exports of rubber since 1941 are given in the following table :

PAN-MALAYAN IMPORTS AND EXPORTS OF RUBBER.						
Year.		Gross exports.		Gross imports.		Net exports.
1940	.. ..	772,767	..	234,319	..	538,448
1941*	.. ..	688,995*	..	222,854*	..	466,141*
1946	.. ..	558,001	..	191,090	..	366,911
1947	.. ..	953,688	..	313,549	..	640,139
1948	.. ..	979,107	..	300,091	..	679,016
1949	.. ..	899,211	..	220,141	..	679,070

Despite the continued terrorist campaign, which has had its effect both on estates and small-holdings, production during the year was well maintained, totalling 670,257 tons as compared with the record output for 1948 of 696,978 tons.

Prices showed an unfavourable trend during the first-half of the year but improved considerably following the devaluation of sterling in September.

Replanting and new planting programmes on estates have been to some extent adversely affected by the low prices ruling for the greater part of the year although many estates continued to work to a planned programme of long term replacement with improved planting material. Little interest has been shown by small-holders in replanting, mainly owing to the financial difficulties involved in a loss of crop over a six-year period. A Committee set up by the Federal Legislative Council to advise on ways and means of assisting small-holders to replant has been unable to report pending the collection on a country-wide basis of data relating to small-holding rubber, which is still in progress. In the case of new planting, the small-holder, where land is available, is showing some interest, although not as yet, on any appreciable scale. A grant of \$1,043,875 was made during the year from the Colonial Development and Welfare Fund to cover the provision, at a nominal cost, of approved high-yielding planting material to small-holders engaged in replanting their holdings or in new planting operations. The scheme is based on an annual replanting or new planting by small-holders of 50,000 acres and, as far as the provision of planting material is concerned, is now well under way.

The serious competition of the synthetic product in the United States market has resulted in considerable attention being focussed on improving the quality of natural rubber. This has manifested itself in moves to secure, by legislation, stricter control on the packing and grading side and in the direction of sale by specification as opposed to grading by visual standards. A further interesting development has been that of centralised processing of small-holders' rubber in certain areas which has so far resulted in a marked improvement in the quality of the product in the areas concerned.

The prevailing uncertainty as to the future of natural rubber has resulted in considerable thought being given by estate interests to diversification of cropping, on the principle of spreading the risk, and interest is manifesting itself in the form both of monoculture of alternative crops and of intercropping of rubber with such.

Rice.

Season 1948-49.—The acreage of padi planted constituted a record total of 908,070 acres, well exceeding the previous record of 885,484 acres planted in the 1947-48 season. This increase in acreage may be attributed, as was the case in 1947-48, to the prevailing high price of rice, to the progress of schemes of irrigation carried out by the Drainage and Irrigation Department and to the assistance rendered by the Department of Agriculture in the form of minor works of drainage and irrigation, financed from Food Production funds.

The total area of wet and dry padi harvested was 838,970 acres and the total yield 195,063,000 gantangs which is equivalent to 307,180 tons of rice. The reduction in crop as compared with the previous season was almost entirely due to the disastrous drought which affected the major producing areas of the north-west.

The following table gives comparative figures for acreages under wet and dry padi together with total yields since the 1937-38 season :

Season.	WET PADI.		DRY PADI.		TOTAL.	
	Acreage.	Yield	Acreage.	Yield	Acreage.	Yield
		(gantangs). 000's		(gantangs). 000's		(gantangs). 000's
1937-38 ..	681,410	193,124	44,550	6,020	725,960	199,144
1938-39 ..	700,270	217,290	46,450	8,105	746,720	225,395
1939-40 ..	721,580	210,077	63,870	10,593	785,450	220,670
1940-41 ..	742,600	204,473	77,880	11,451	820,480	215,924
1945-46 ..	684,010	143,303	105,640	6,577	789,650	149,880
1946-47 ..	732,620	162,376	80,930	8,896	813,550	171,272
1947-48 ..	802,730	208,323	82,760	9,523	885,490	217,846
1948-49 ..	842,450	187,130	65,620	7,933	908,070	195,063

The following table shows Malayan rice production in relation to imports and consumption. Unfortunately, owing to the incomplete import figures for 1941, and to the reduced imports since the war, no useful comparison can be made with pre-war years when local production was approximately a third of total consumption (as estimated by the sum of local production and net imports). It must be emphasised that the present total consumption is abnormally low; imports are restricted and only a low ration of rice is possible; thus local production would represent a much smaller percentage of potential total consumption.

MALAYAN PRODUCTION OF RICE IN RELATION TO NET IMPORTS AND CONSUMPTION, 1939-49.

	1939.	1940.	1941.	1946.	1947.	1948.	1949.
Net Imports (tons) ..	658,653 ..	635,360 ..	538,995 ..	136,434 ..	237,119	449,565 ..	483,391
Production (tons) ..	341,455 ..	335,138 ..	324,210 ..	225,044 ..	257,164 ..	343,065 ..	307,180
Consumption (tons)	1,000,108 ..	970,498 ..	863,205 ..	361,478 ..	494,283 ..	792,630 ..	790,571
Percentage of production to net imports	52 ..	53 ..	60 ..	165 ..	108 ..	76 ..	64
Percentage of production to consumption	34 ..	35 ..	38 ..	62 ..	52 ..	43 ..	39

Annual Malayan net imports of rice since 1939 are given in the following table which includes broken rice but does not include rice bran and meal and padi :

NET IMPORTS OF RICE INTO MALAYA.
(In Tons.)

Year.	White rice.		Parboiled rice.		Broken rice.		Cargo rice.		Total Rice.	
									Quantity.	Value. \$
1939	..	460,145	..	71,209	..	89,091	..	38,208	.. 658,653	.. 41,700,744
1940	..	460,328	..	77,445	..	62,825	..	34,762	.. 635,360	.. 50,896,150
1941	..	403,599	..	95,806	..	22,833	..	16,758	.. 538,996	.. 58,206,142
1946	..	133,396	..	25	..	3,013	..	1	.. 136,433	.. 24,530,956
1947	..	231,095	..	5,921	..	104	..	1	.. 237,119	.. 57,401,711
1948	..	448,017	..	102	..	1,300	..	146	.. 449,565	.. 184,073,360
1949	..	472,690	..	20	..	10,681	..	—	.. 483,391	.. 195,329,964

The price fixed by Government for the purchase of padi remained at \$15 per picul throughout the year.

Progress continued to be made with the investigations in mechanical cultivation. A mission appointed by the Secretary of State for the Colonies to advise thereon visited the Federation in July and August and their report is awaited. It is already apparent, however, that the peat soils, which form the bulk of the new areas awaiting development as irrigation schemes, are likely to prove difficult from the point of view of mechanical cultivation.

Oil Palm.

The growers of this essentially estate crop continued to benefit from the high prices resulting from the world shortage of vegetable oils.

The following table shows the planted area under oil palm together with the production of palm oil and kernels since 1939. At the end of 1949, out of a total of 54 estates there were 46 estates with a total area of 74,332 acres in production :

PRODUCTION OF PALM OIL AND KERNELS AND PLANTED ACREAGES.
Production.

Year.	Planted Area.		Production.	
	Acres.		Palm Oil. Tons.	Palm Kernels. Tons.
1939	..	75,825	.. 57,373	10,172
1940	..	78,256	.. 57,972	9,611
1946	..	77,458	.. 11,756	931
1947	..	78,181	.. 39,115	5,737
1948	..	83,320	.. 45,257	8,471
1949	..	90,507	.. 50,561	10,459

The long-term outlook for this crop remains good and is reflected in the applications for suitable areas of land for new planting and by a certain amount of replacement of obsolete rubber by oil palm.

Coconut.

This is largely a small-holders' crop although production by estates is by no means negligible. As in the case of oil palms prices have continued favourable and long-term prospects appear to be good.

The following table shows the commercial production of copra by estates and small-holdings (the latter estimated) since July, 1948, together with the production of coconut oil and copra cake by oil mills for the years 1947-49 :

PRODUCTION OF COPRA, COCONUT OIL AND COPRA CAKE.
(In Tons.)

Year.	Copra production.		Coconut oil.	Copra cake.
	Estates.	Small-holdings.		
1947	—	—	51,186 ..	40,760
1948	19,011*	45,608*	51,164 ..	37,970
1949	36,957	85,980	63,698 ..	43,300

Net exports of copra and coconut oil since 1939 are given in the following table. The statistics are pan-Malayan and include Singapore :

NET EXPORTS OF COPRA AND COCONUT OIL.

Year.	Copra.		Coconut oil.	
	Tons.	Value. \$	Tons.	Value. \$
1939	34,420	3,321,422	61,360	7,133,925
1940	† 9,904	\$ 990,568	69,446	8,291,617
1941†	† 32,682	† 813,965	64,945	6,668,318
1946	† 34,213	† 7,731,995	8,008	4,683,425
1947	† 45,439	† 14,734,312	41,112	24,668,790
1948	† 28,624	† 14,018,149	45,245	45,531,182
1949	† 24,424	† 7,159,041	60,504	54,521,306

Pineapple.

Rehabilitation of this industry continued both on the field and the factory sides. On the field side there are now over 16,000 acres planted of which rather more than 5,000 acres are owned by the canning interests and the remainder by small-holders. On the factory side, the canneries further modernised their plant by additional introductions of automatic processing machinery. Six canneries are at present operating under licence. They are by no means operating to capacity owing to the shortage of fruit but an improvement in this respect will occur in 1950 when considerable new areas will come into bearing.

The following table shows the exports of canned pineapple from Malaya since 1939 :

EXPORTS OF CANNED PINEAPPLE.

Year.	Cases.	Value. \$
1939	2,725,279	9,928,416
1940	1,543,492	8,435,768
1946	872	11,568
1947	86,516	2,430,951
1948	145,581	3,652,621
1949	298,276	6,307,169

The bulk of the 1949 production was sold to the Ministry of Food at agreed prices.

The passage of legislation to control the industry and the setting up of a permanent Joint Council have still to be finalised.

* July-December only. † Net Imports. ‡ January to October, 1941. § Net export value
(The figures in this table are pan-Malayan and include Singapore imports and exports.)

Tea.

The following table gives particulars of the number of tea estates, planted acreage and reserve land :

TEA—PLANTED AREA AND RESERVE LAND.

Year.	No. of estates.		Planted area.		Area in production.		Area of reserve land.	
				Acres.		Acres.		Acres.
1940	*	..	8,898	..	*	..	8,275	
1946	52	..	8,697	..	3,697	..	6,448†	
1947	57	..	9,732	..	3,627	..	9,122	
1948	55	..	9,516	..	5,037	..	7,216	
1949	50	..	9,413	..	6,100	..	15,173	

Particulars of production, export and local sales of tea are given in the following table :

PRODUCTION OF MADE-TEA, EXPORTS AND LOCAL SALES
(as reported by Estates).

Year.	Production.		Exports.		Sold locally.	
		lbs.		lbs.		lbs.
1940	1,573,854	..	662,863	..	838,876	
1941	1,608,173	..	454,074	..	899,440	
1946	420,532	..	—	..	405,842	
1947	1,242,285	..	108,069	..	885,913	
1948	2,257,619	..	641,804	..	1,447,189	
1949	3,233,950	..	1,853,291	..	1,606,282	

The following is an analysis of provisional 1949 statistics for highland and lowland estates :

	No. of estates.		Planted area.	Area in	Reserved	Production
			Acres.	production.	land.	made tea.
Highland	36	5,718	3,893	3,693	1,364,947	
Lowland	14	3,695	2,207	11,480	1,896,003	
Total	50	9,413	6,100	15,173	3,233,950	

Foodcrops and Vegetables.

The area under foodcrops and vegetables was reasonably well maintained, slight drops in acreages of sweet potato, sugar cane, groundnut, and market gardens being recorded.

Action by the Administration and Security Forces in connection with squatter areas has however, of necessity, had some adverse effect. The total acreage at the end of the year was 88,970 acres as compared with 96,839 acres in 1948.

Tapioca and sweet-potatoes are the major rice substitute crops grown while considerable areas of market gardens exist for the supply of vegetables to the large towns. Of some importance in the latter connection is the Cameron Highlands area which to a great extent specialises in cabbage growing. Production in this area averaged about 1,000 tons monthly in 1949 as compared with 675 tons in 1948.

Arecanut.

The crop is entirely grown by small-holders and mainly exists in mixed cultivation although there are certain areas where it is planted as the sole crop. Production is in the form of split or sliced nuts mainly the former. Little interest is being shown in this crop at present.

Coffee.

The recent high prices for this commodity have benefitted the local growers, although there has been no increase in acreage as a result. Coffee has for years been declining as a crop in Malaya. A few small estates still exist but much of the crop is in mixed stand; in many cases interplanted with coconuts.

Derris.

Although still fulfilling certain specialised uses, derris as an insecticide has largely been replaced by D.D.T., Gammexane and certain others, and planting is now largely confined to the insecticidal requirements of the market garden community.

Fruits.

Fruit trees in mixed stand are a feature of every *kampong* and the total area planted throughout the country is very considerable. The planting of orchards of individual species continues to increase. Bananas are an important crop with certain areas specialising in their production. Unfortunately, their cultivation at present is mostly of a shifting character and productive of bad agricultural practices.

The development by the Department of Agriculture of clonal material of the major local fruits has continued. There is a large demand on the part of small-holders for planting material of clonal origin, which cannot as yet be fully met.

Excellent crops of local fruits were harvested during the year in the majority of areas.

Sago.

This palm is confined to low-lying swampy areas. From the fronds *atap* is prepared while the stems are disposed of either to pig breeders for consumption raw or to sago factories for the production of flour.

Spices.

The main spices grown are chillies, *sireh* (betel leaf) ginger and turmeric, mostly in small areas but quite extensive in the aggregate. The world shortage of pepper has resulted in a heavy demand locally for planting material of this crop. Supplies, however, have been extremely limited.

Tobacco.

This is an important catch crop in some areas such as market garden areas where it is grown in rotation with vegetables, while it is grown on the East Coast as an off-season rotation crop in the padi areas. In all cases it is grown for local consumption.

Cacao.

Considerable progress has been made during the year with the investigation work on cacao and some 400 acres have now been planted for experiment and observation, mainly on estates, in various parts of the country. Most of these plantings have been from seed produced by the small areas of Trinitario cacao planted before the war by the Department of Agriculture.

The position has now been reached where certain interests are prepared to take the commercial risk of planting cacao on an estate scale on the better soils, for example, the Pahang volcanics and the finer grained granites, and applications have been made for land for this purpose.

Introduction of seed of the Amelonado variety from West Africa was undertaken during the year; seedlings are being raised in an isolation nursery on Pulau Tekong, an island off Singapore. A grant of \$89,930 has been made from the Colonial Development and Welfare Fund for the development of this nursery.

Manila Hemp.

This crop is still in the experimental stage, utilising the very limited supplies of planting material which the Department of Agriculture has been in a position to provide for the purpose from the nurseries at its disposal.

Ramie.

This is another crop which may be regarded as being still very much in the experimental stage. The success of this crop in the Everglades of Florida has focussed attention locally on the possibilities of the peat soils for ramie cultivation.

Crop Acreages.

The following table provides comparative figures since 1939 for acreages under all crops grown in the Federation:

COMPARATIVE ACREAGES OF ALL AGRICULTURAL CROPS.

	1939. Acres.	1940. Acres.	1946. Acres.	1947. Acres.	1948. Acres.	1949. Acres.
Rubber	3,372,966 ..	3,412,084 ..	3,215,250 ..	3,317,299 ..	3,362,525 ..	3,365,460
Oil Palm	75,825 ..	78,256 ..	77,458 ..	78,181 ..	83,320 ..	90,507
Coconut	599,135 ..	600,882 ..	— ..	512,086 ..	510,824 ..	499,610
Padi (Rice) ..	746,720 ..	785,450 ..	789,650 ..	813,550 ..	885,484 ..	908,070
Total	<u>4,794,646 ..</u>	<u>4,876,672 ..</u>	<u>4,082,358 ..</u>	<u>4,721,116 ..</u>	<u>4,842,153 ..</u>	<u>4,863,647</u>
FOOD CROPS:						
Tapioca	36,146 ..	46,292 ..	58,711 ..	41,807 ..	41,693 ..	41,341
Sweet-potato ..	10,052 ..	12,366 ..	22,483 ..	20,363 ..	21,619 ..	18,922
Sago	6,728 ..	6,976 ..	6,385 ..	6,556 ..	6,693 ..	6,738
Sugar-cane ..	1,287 ..	3,251 ..	9,261 ..	4,541 ..	3,297 ..	2,346
Ground-nut ..	2,537 ..	2,054 ..	1,951 ..	2,300 ..	1,556 ..	1,027
Maize	3,489 ..	8,369 ..	2,059 ..	1,107 ..	1,117 ..	806
Yam	1,524 ..	1,859 ..	1,066 ..	870 ..	836 ..	621
Colocasia ..	470 ..	2,938 ..	4,342 ..	3,627 ..	3,711 ..	3,354
Ragi	— ..	181 ..	1,389 ..	451 ..	72 ..	37
Soya Bean ..	30 ..	188 ..	238 ..	145 ..	186 ..	63
Pulses	— ..	— ..	599 ..	487 ..	854 ..	548
Vegetable (mar- ket gardens)	19,946 ..	25,406 ..	17,346 ..	15,019 ..	15,205 ..	13,167
Total Food Crops	<u>82,209 ..</u>	<u>109,880 ..</u>	<u>125,830 ..</u>	<u>97,273 ..</u>	<u>96,839 ..</u>	<u>88,970</u>

COMPARATIVE ACREAGES OF ALL AGRICULTURAL CROPS—(cont.).

	1939. Acres.	1940. Acres.	1946. Acres.	1947. Acres.	1948. Acres.	1949. Acres.
FRUITS :						
Pineapple ..	64,555 ..	60,157 ..	13,813 ..	11,920 ..	16,082 ..	17,239
Banana ..	35,107 ..	45,728 ..	67,995 ..	64,075 ..	59,950 ..	57,629
Papaya ..	299 ..	503 ..	622 ..	306 ..	416 ..	392
Cashew Nut ..	1,784 ..	793 ..	1,727 ..	1,512 ..	2,219 ..	2,049
Specified fruits ..	4,575 ..	4,014 ..	17,060 ..	20,430 ..	25,288 ..	32,914
Mixed fruits ..	67,446 ..	73,843 ..	70,693 ..	82,997 ..	85,348 ..	77,264
Total Fruits ..	173,766 ..	185,038 ..	171,910 ..	181,240 ..	189,303 ..	187,487
SPICES.—						
Arecanut ..	63,524 ..	58,619 ..	51,579 ..	50,983 ..	50,194 ..	48,957
Chillies ..	2,252 ..	2,952 ..	2,692 ..	3,189 ..	3,159 ..	2,490
Pepper ..	222 ..	203 ..	85 ..	80 ..	75 ..	80
Cardamom ..	27 ..	— ..	5 ..	8 ..	7 ..	5
Ginger ..	1,257 ..	1,569 ..	1,332 ..	1,358 ..	1,562 ..	1,447
Sireh ..	2,716 ..	2,955 ..	2,317 ..	2,308 ..	2,418 ..	2,438
Nutmeg ..	93 ..	112 ..	21 ..	53 ..	87 ..	70
Cloves ..	386 ..	398 ..	281 ..	289 ..	288 ..	293
Turmeric ..	9 ..	687 ..	1,018 ..	1,085 ..	1,174 ..	1,120
Total Spices ..	70,486 ..	67,495 ..	59,330 ..	59,353 ..	58,964 ..	56,900
MISCELLANEOUS.—						
Tea ..	7,043 ..	8,898 ..	8,697 ..	9,732 ..	9,516 ..	9,413
Coffee ..	20,589 ..	16,622 ..	9,839 ..	8,958 ..	7,047 ..	9,507
Tobacco ..	5,440 ..	5,857 ..	3,699 ..	4,266 ..	1,294 ..	1,457
Derris ..	6,594 ..	5,481 ..	1,193 ..	772 ..	234 ..	264
Nipah ..	27,945 ..	27,074 ..	30,115 ..	32,074 ..	27,238 ..	33,438
Gambier ..	2,925 ..	4,000 ..	523 ..	518 ..	387 ..	532
Kapok ..	2,460 ..	2,353 ..	1,861 ..	1,852 ..	1,814 ..	1,770
Ipecacuanha ..	— ..	— ..	678 ..	678 ..	678 ..	257
Patchouli ..	292 ..	945 ..	178 ..	501 ..	109 ..	32
Citronella ..	25 ..	122 ..	32 ..	88 ..	33 ..	20
Gutta Percha ..	2,890 ..	3,890 ..	5,054 ..	5,635 ..	5,635 ..	5,635
Other Miscel- laneous ..	580 ..	287 ..	7,564 ..	645 ..	508 ..	753
Total Miscella- neous ..	76,783 ..	75,429 ..	69,433 ..	65,719 ..	54,493 ..	63,078
TOTAL ALL CROPS	5,197,890 ..	5,314,514 ..	4,508,861 ..	5,124,701 ..	5,241,752 ..	5,260,082

Forestry.

Reservation—The total area of reserved forest showed a net increase of 92.5 square miles, bringing the overall total for the Federation up to 11,357.3 miles, representing 22.4 per cent. of the total land area. Approximately 2,479 square miles or nearly 22 per cent. is however purely protective forest, reserved in order to prevent erosion on steep hill-sides and to preserve water supplies. Much of this forest can never be worked for timber and, from a utilization point of view, must be classed as unproductive. Some 1,690 square miles were preliminarily notified but still awaited final settlement at the close of the year. Further reservation remains to be done in Kelantan, Trengganu and Pahang, but in the western States reservation will be virtually complete when the areas now proposed or preliminarily notified have been finally constituted.

Management.

Regeneration—Although seed production in 1949 was better than in 1948, fruiting was generally light and, with certain exceptions, little regeneration resulted. In Kelantan there was a general fruiting of dipterocarps, including *chengal* (*Balanorcarpus heimii*) and in the Kanching forest reserve, Selangor, *kapur* (*Dryabalanops aromatica*) fruited heavily. Seed production in the mangrove reserves was again very poor.



**A Malay girl sketches in the design
of a printed fabric at the Batik
Works, Kota Bharu.**



mples of the work of
engganu craftsmen.

In spite of banditry, improvement work was undertaken in nearly all States and a total area of 185,066 (116,542) acres was under regeneration at the end of the year. A further 8,044 (3,036) acres were passed as being fully regenerated bringing the total area up to 40,410 acres.

Planting—Further progress was made with the reafforestation of areas clear felled during the Japanese occupation, a total of 825 acres being planted during the year. The largest areas of new plantations were in Malacca (429 acres) and Negri Sembilan (307 acres). After writing off 294 acres of failures the total area under regular plantations at the end of the year was 3,666 (3,135) acres.

Working Plans—The marking of trees in commercial fellings was again restricted by banditry and in many districts fellings were controlled by a minimum girth rule. In spite of the difficulties some progress was made with working plans and in Perak a revision of the Matang Mangrove plan was almost complete by the end of the year. The revised prescriptions provide for a reduction in the rotation from 40 to 30 years. In Kedah plans were drawn up for the forests of the Langkawi Islands and the Merbok reserve. In Pahang the Tersang reserve plan was revised and new plans made for the Baloh and Bebar Mangrove reserves. Work on the revision of the Pulai reserve (Johore), Ulu Gombak reserve (Selangor) and the group of mangrove reserves in Negri Sembilan was commenced.

Production.

Timber—The outturn of timber from all sources was 23,058,190 (19,014,456) cubic feet of round wood and 2,589,175 (2,983,926) cubic feet of sawn timber, giving an estimated total equivalent of 28,236,540 (24,982,308) cubic feet in the round (quarter girth measurement). The increased outturn is directly attributable to the increase in the volume of timber exported to overseas markets, (and, had the year been a normal one, there is little doubt that production would have been even greater). More timber came from State land and proportionately less from forest reserves—51 per cent. as against 53 per cent. in 1948. Again, the reason for this trend can be found in the growth of the export trade. The wide range of light hard-woods now accepted by both overseas and local markets has rendered it possible to re-open State land areas that were considered “worked out” ten to fifteen years ago. Hand-sawing, except for hardwood flitches and a certain amount of sleepers, is dying out and more and more of the total outturn is being converted in saw-mills. In the western States this now amounts to as much as 80 per cent. in some instances. The outturn of poles showed a further rise, the total for the year being 3,749,422 (3,394,762) cubic feet, the most marked increase being in the mining districts of Perak and Selangor.

Firewood and Charcoal.

There was a rise in the outturn of firewood at 13,686,138 (13,091,400) cubic feet (solid) due mainly to a brisk demand from Hongkong towards the close of the year. The firewood depôts at

Penang and Kuala Lumpur continued to be managed by authorized contractors but with Government control over the retail prices charged. Charcoal production increased slightly to 4,986,646 (4,406,335) cubic feet (solid).

Minor Produce—Total revenue from this source was \$293,580 (\$385,805) the reduction being largely due to the decrease in *jelutong* production. Partly owing to the very low prices ruling during the year and partly owing to the emergency, tapping ceased in all States except Pahang where it was continued on a much reduced scale. Revenue from the commodity dropped to \$54,069 (\$133,624) compared with a pre-war average of about \$200,000. The market for gutta-percha was irregular but some 74 (77) pikuls were disposed of departmentally, revenue amounting to \$23,337. The Government Damar Factory at Kuala Pilah continued operations throughout the year. London interest in the commodity, which is sold under the registered trade name of Malayan Damar Penak, revived and some 690 pikuls were sold. Revenue amounted to \$36,470. The trade in rotans, nipah and other minor produce remained steady.

The Timber Trade—The major function of the Timber Purchase Branch of the Forestry Department in past years has been the selection and purchase of timber on behalf of Government Departments. Although it remains the policy of the department to render this service as widely as ever the rapid expansion of the increasingly occupied with the grading of timber for overseas markets. Nevertheless the total quantity of timber supplied through the branch was 714,718 (927,059) cubic feet sawn, and 57,250 (104,265) cubic feet round. Most of the round timber went to the Malayan Railway's plant at Sentul and the Railways were also the biggest purchasers of sawn timber, taking 598,988 (800,208) cubic feet, most of which was in the form of sleepers. Other Government departments supplied included the Public Works Department 24,891 (16,229) cubic feet and the Electrical Board 16,908 (11,465) cubic feet. Supplies to the Services, who have now largely completed their building programme, were down at 42,117 (72,016) cubic feet. Grading fees in respect of local supplies realized \$34,079 (\$13,978).

Prices—The prices paid for primary hardwood timber averaged 12 per cent. higher than 1948 whilst those for secondary hardwoods remained steady. The price of light hardwood logs increased by 17 per cent. These increases were mainly due to the emergency conditions prevailing in most logging areas.

The following comparison of pre and post-war prices is interesting. Figures are in dollars per ton of 50 cubic feet :

Type of Timber.	1941.	1947.	1948.	1949.
	\$	\$	\$	\$
Primary hardwoods (sawn) ..	60	190	196	221
Secondary hardwoods (sawn) ..	33	98	100	100
Light hardwoods (sawn) ..	33	79	96	98
Secondary hardwoods (logs) ..	10	33	30	35
Light hardwoods (logs) ..	10	33	28	31
Piles and Poles ..	25	55	59	50

The Timber Export Trade—As mentioned above an increasing amount of Timber Inspectors' time is being taken up with grading timber for export to high-class markets, particularly the United Kingdom. The expansion of the trade was, indeed, spectacular, as may be judged from the fact that graded exports totalled 813,705 cubic feet compared with 153,150 cubic feet in 1948. Of this total 415,888 (15,805) cubic feet was shipped from Federation ports; the balance, mostly produced in Johore, being shipped from Singapore. The trade expanded rapidly throughout the year and during the last quarter the demand for grading began to outstrip the department's capacity to grade. To meet this situation and to avoid a hold-up in exports the strength of the Timber Inspectorate was increased by four new appointments, two of them, however, being operative from 1st January, 1950. In addition the Forestry Department has now extended its training facilities to the employees of saw-milling and exporting concerns. The private Inspectors thus trained will, after examination, be given certificates of competency to grade timber under the Malayan Grading Rules, but their work will be subject to a percentage check by Government Inspectors to ensure that the quality standards laid down in the rules are strictly maintained. The publication, in July, of the Malayan Grading Rules did much to stimulate overseas interest in Malayan timbers and has put export trade on a firmer basis. Saw-millers have welcomed them because of their flexibility and because they now feel that the lower grades, which must inevitably make up a large proportion of their outturn, are at least catered for. Exporters like them for much the same reasons and buyers now know, without much possibility of doubt, what they are likely to get under any given grade and can adjust their purchases to fit end uses and so it is hoped, please their customers. Probably the most important reason for the popularity of Malayan timbers is that the United Kingdom has, for economic reasons, been forced to curtail drastically her buying in "dollar" areas and is looking to soft currency areas, preferably within the Commonwealth, to fill the gap. There is thus a wonderful opportunity for Malaya, with her vast forest wealth, to expand her export trade—an opportunity which the timber industry has not been slow to grasp. Grading fees in respect of timber for export realized \$37,825 (\$7,657).

The high-class export trade however is a comparatively modern development and most important though it has become, it is on the less exacting eastern markets that Malaya relies for a steady outlet for her surplus timber production. Nearly 2,000 tons were shipped from Federation ports to these eastern markets but that by no means states the measure of the Federation's interest in the trade. Much of the timber sawn in Singapore is produced from logs obtained from the Federation and much of the timber milled in the Federation, particularly in Johore, is shipped via the port of Singapore.

Although the two territories have to be treated as separate entities, no true picture of the timber export trade can be given without considering Malaya as a whole. The following table gives the exports of sawn timber from Malaya (including Singapore) for

the years 1947, 1948 and 1949. The principal receiving ports are shown in brackets and the figures are in tons of 50 cubic feet :

Exported to	1947.	1948.	1949.
United Kingdom (London, Liverpool)*	65	2,226	17,011
Australia (Sydney, Adelaide)*	62	363	2,717
South Africa (Durban)*	—	218	2,059
China (Shanghai)†	4,192	7,822	1,372
Hongkong	4,003	2,287	10,789
Indonesia (Pelembang, Riouw) ..	2,045	7,826	7,930
Union of India (Calcutta, Bombay) ..	308	911	4,664
Pakistan (Karachi)	—	884	3,945
Iraq (Basarh)	660	233	1,000
Aden, Bahrein and Kuwait	1,379	2,936	4,320
Arabia (Jeddah)	2,490	7,419	10,352
Mauritius (Port Louis)	746	1,132	1,543
Other places not shown above	202	1,892	1,050
Total ..	16,152	36,149	68,752
Approximate f.o.b. value in \$ Straits ..	1,907,000	3,984,000	8,629,291

* All timber to these markets was graded by the Department of Forestry. since April, 1949.

† No shipments

Forest Engineering.

Road Construction—Work on the \$3¼-million scheme for forest road construction, financed from the 1949 Federation of Malaya Loan, continued throughout the year. Following the arrival of the Engineer for Road Construction early in the year it was possible to increase the scale of construction and fair progress was made with the Kluang-Rengam reserve project. Seven and a half miles of earthwork and the necessary bridging were completed and of this length five and a quarter miles were strip-metalled; more would have been done but for a hold-up in the supply of stone. The tractors left Kluang on 16th December for the Sungei Lalang forest reserve in Selangor where work started on the next project. Only four days later a metal laying gang in the Kluang reserve was ambushed by bandits and, three men were killed and eight wounded. Work in the area was brought to a standstill and cannot be restarted until safer conditions have been restored.

The Construction unit uses Caterpillar D6 tractors, equipped with hydraulic angle-dozer and Hyster towing winches. These machines have proved very reliable and are capable of handling all operations, though a bigger machine for really heavy stumping would be an advantage. A mobile workshop and a Bradford-Aveling calf-dozer were added to the plant; the latter proved a great labour-saver on the innumerable occasions when spoil earth had to be moved. The old, ex-Military lorries are most extravagant and will have to be replaced soon. While the present unsettled conditions continue, and personnel and plant have to be protected, it is not possible to get full work out of the machines. Nevertheless, although progress may be slow, full value is being obtained for the money that is being expended.

Saw-milling—Bandit activity has also caused the saw-mills much difficulty. One was burnt down, several more have closed down to avoid being forced to provide supplies to the bandits, others have had lorries destroyed and many find difficulty in persuading their logging gangs to remain at work. The Police, too, are often obliged to clear the forest of loggers so that they are not mistaken for bandits during security operations. In spite of this millers have shown great determination to keep producing and develop their mills. Eleven new mills were planned and five others increased their plant. Most of the new mills still insist on using circular saws except in the case of single-bench town mills which prefer a small bandsaw. These bandsaws are locally made with 40" pulleys and a 3" blade and are often to be seen sawing heavy flitches requiring a cut up to 20" depth. Some millers are anxious to adopt more modern plant but the cost of large bandmills is so high that only a wealthy concern can find sufficient capital to buy them. The grading of timber for export has led to a great improvement in the standard of sawing of timber for local use, but almost all mills need cross-cut saws, thicknessers and 4-cutters to improve their finishing and to save waste in off-cuts and slabs.

Extraction—High cost militates against the use of tractors and heavy diesel lorries, both of which are essential if the cost of logging and extraction is to be reduced. Tractors will eventually be more generally used, but the heavy diesel truck cannot come into its own until public roads are improved and weight restrictions relaxed. Under existing conditions, because of the weight of the vehicle itself, these safer and more economical machines would be obliged to carry a smaller pay-load than the light, fast and dangerous three-tonners that are now causing so much damage to the roads.

Research.

Silviculture—A Silvicultural Research Committee was set up, its functions being to advise on ecological, botanical, silvicultural and mensuration research and, under the general direction of the Director of Forestry, to prepare long and short-term research programmes. At its first meeting in November the Committee defined the objects of silvicultural research as "the acquisition and dissemination of knowledge which will enable the best use to be made of forest land in accordance with the objects of management. Where production of timber is the main object, its aim will be to achieve the optimum sustained yield". The research programme has been published in *The Malayan Forester*, Vol. XIII, No. 1, and has been distributed in reprint form. The Revised (Oxford) Classification System recommended by a Joint Committee of the International Union of Forest Research Organizations and F.A.O., was adopted as a library classification and as a subject classification for filing silvicultural information.

The experimental plantations at the Forest Research Institute, Kepong, covering some four hundred acres were upkeep and small additions made. Attention was concentrated on the study of research techniques, particularly on permanent sample plot methods, collection and compilation of tree growth statistics, linear

regeneration, sampling and phenological studies. Experiments were initiated on the sowing and planting of *lalang* covered land and tin tailings—an essential preliminary to the reclamation of the large areas of waste land throughout the country.

Trees in permanent inland sample plots, measured annually for girth, total 7,800 comprising more than 130 species; most of these were measured during the year by District Forest Officers and some by the Silviculturist. In a few cases measurement was impossible owing to terrorist activity in the vicinity of the plots. Mangrove sample plots were maintained. Six new sample plots were established. In addition to those mentioned above there are records of 133 plots, which include annual measurements of over 5,100 trees, which have been finally felled or were destroyed during the occupation. Compilation and analysis of these figures since 1928 (when Malayan Forest Record No. 9 was published), or since their initiation, were completed by the late Mr. C.C.L. Durant, Senior Assistant Conservator of Forests, before the Japanese invasion, but all the compilations were lost. There are, therefore, considerable arrears awaiting compilation when staff and time permit.

Botany—The herbarium was re-arranged in phylogenetic sequence based on *Genera Plantarum* by G. Bentham and J.D. Hooker. This brings it into line with the herbaria at the Royal Botanic Gardens, Kew and the Botanic Gardens, Singapore. All type sheets have been removed from the general herbarium and are now kept in a special cabinet. The total number of specimens in the herbarium at the beginning of the year was approximately 36,500, made up as follows :

Forest Department	..	Malayan collections	..	25,013
„		Brunei	.. ..	1,494
Duplicates from	..	Singapore	.. ..	5,471
„	..	North Borneo	.. ..	3,287
„	..	Sarawak	.. ..	571
„	..	Phillipines	.. ..	425
Miscellaneous	.. ..	.. ..	.. ..	239
Total				36,500

Acquisitions during the year amounted to 1,024 (727 by Malayan Forest Department, 293 duplicates from North Borneo, 4 from Brunei) which brings the total number in the herbarium to 37,524 compared with 41,096 on the 1st January, 1941.

Investigations on natural plant succession on devastated and cleared land and on the structure and composition of virgin forest were continued. The study was begun of the bark characters of our non-dipterocarp timber trees to facilitate their identification in the field.

A list of all Malayan species that are known to reach timber size (arbitrarily taken as 4 feet girth or 16 inches in diameter at breast height) was prepared. Excluding all figs and other species of no timber value, locally restricted, montane, undescribed and unknown species, this list amounts to over four hundred and fifty species, of

which twenty per cent. are dipterocarps. It has been prepared as a first step to the production of a short list of preferred timber species, and to facilitate the choice of non-dipterocarp species on which work is to be concentrated. This will consist of notes on distribution, general description, detailed description of fruit, seed, seedling, sapling and bark characteristics and slash of the mature tree. It will be written up at a future date as a manual of non-dipterocarp trees, to be published as a companion volume to the existing *Foresters' Manual of Dipterocarps* by the late C. F. Symington.

Entomology—Studies of the families Scolytidae and Platypodidae were continued. One paper was published describing a new genus (*Diamerides*) and nine new species. Three genera, viz., *Scolytomimus*, *Dacryphalus* and *Trypodendron*, were recorded from the Malay Peninsula for the first time. The occurrence of *Trypodendron* is surprising as it is essentially an Holarctic genus, the previously known localities nearest to Malaya being in northern India and China. These species have still to be described.

Close contact was maintained with Professor K. E. Schedl of Linz, the British Museum (Natural History), the U.S. National Museum at Washington. Fifty-two specimens were sent to Europe for identification. Seventy-seven duplicate specimens of the more important Malayan species, mainly ambrosia beetles, were sent to the Forest Products Research Laboratory, Princes Risborough. Identifications of a number of species belonging to these families were made for the Department of Agriculture and the Rubber Research Institute. The collection in the Selangor Museum was studied and revised in the light of up-to-date classification and synonymy. A card index with reference to all known Oriental Scolytidae and Platypodidae was maintained. A study of the generic characters of the larvae of Malayan Scolytidae and Platypodidae is now almost complete, but still awaits material of some critical species and identifications of others.

A survey of the incidence of attack by ambrosia beetles and other borers on various Malayan timbers was started, and for this purpose the Entomologist visited a number of saw-mills in Singapore and Kuala Lumpur. Considerable difficulty was experienced in finding comparable and sufficiently numerous samples of run-of-the-mill stock of certain timbers, but it is hoped that it will eventually be possible to compile a list of timbers in susceptibility classes. Such a list would be invaluable when the application of control measures is under consideration. Thanks to the co-operation of numerous State and District Forest Officers, it was also possible to start a survey of the relative abundance of the meranti shot-hole borer (*Crossotarsus impar* Sch.) in various parts of the Malay Peninsula. This survey is yielding valuable information on the climatic requirements of the species, but very numerous data are required before definite results can be obtained.

Thirty-eight small scale field tests of various insecticides, repellents and attractants, for the protection of logs against ambrosia beetle attack, were made during the year. The results of most of these tests have been published in *the Malayan Forester*. Benzine hexachloride shows great promise as a short-term preservative of

felled timber and experiments with this insecticide are still in progress.

Numerous queries concerning powder-post beetles were received during the year, and inspection showed that damage was widespread and severe in post-war buildings in Kuala Lumpur and other large towns. Infestation is particularly noticeable in door and window-frames, for which sapwood off-cuts are generally used by contractors, often in spite of specifications of hardwood. In every case examined it was evident that attack had occurred in the sawmill or timber yard prior to installation of the timber in the building, and it seems probable that a good coat of paint or varnish is usually sufficient to protect the wood from new infestation. If sapwood is to continue to be used for such purposes (and this may be necessary in the interests of economic utilization) the contractor should be held responsible for its thorough disinfection and protection by approved methods.

Tests of simple control measures to protect timber during seasoning and storage are in progress. Up to the present, both DDT and benzene hexachloride sprays are giving promising results, but these can be expected to afford protection only for a few months, and for longer preservation one of the tried forms of impregnation is likely to be necessary. For the disinfection of infested timber in buildings, swabbing with orthodichlor-benzene, a saturated solution of paradichlorbenzene in kerosene, or 5 per cent. pentachlorophenol, has proved very satisfactory.

Timber Mechanics.

Under the scheme for pilot tests, material was collected from three trees each of Jelutong (*Dyera costulata*), Sepetir (*Sindora coriacea*), Minyak berok (*Xanthophyllum verrucosum*) and Upun batu (*Upuna borneensis*), the last from British North Borneo. This material provided for 1,315 standard mechanical tests and for investigations of starch and silica content, physical properties, seasoning qualities, woodworking characteristics, durability and amenability to preservative treatment. Supplementary tests, including 398 mechanical tests, were made on material of Batai (*Albizia moluccana*), Geronggang (*Cratoxylon arborescens*), Punah (*Tetramerista glabra*), Melawis (*Gonystylus bancanus*), and Terentang (*Camphosperma Macrophylla*). Further tests, which included 315 standard mechanical tests, were made on material from one small log of *Gnetum gnemon*, and on one large log of locally grown Mahogany (*Swietenia macrophylla*) and on *Eucalyptus deglupta*. A few 6 ft. long pit props of Leban (*Vitex spp.*), Kapur (*Dryobalanops aromatica*) and Keladan (*D. oblongifolia*) were tested to destruction in compression along the grain. Nail driving tests were carried out on twelve different timbers.

Durability and Wood Preservation.

The pressure plant was put into working order and 149 durability test sticks were treated by the full cell process. Material treated by the open tank process included sticks for the standard test of amenability to treatment, durability test sticks, boards, pickets, and fence posts.

Over 600 durability test sticks, treated and untreated, were buried in the testing grounds at Kepong. These included sticks treated with pentachlorophenol and four different types of a proprietary brand of preservative. In addition some fibreboards, wood-wool, and timber treated with paraffin wax were placed in a shed infested with termites. The tests of the proprietary brands of preservatives included the exposure of brush treated panels to sun and rain to determine how long the colour would last. Close contact has been maintained with the plywood factory at Seremban. Plywood panels of different timbers have been submitted to exposure tests, some panels being painted with creosote and some with two coats of paint.

Despite the emergency, most of the service tests of sleepers, boundary and fence posts, power line poles, bridge timbers, roofing shingles, etc., have been inspected. Service tests commenced during the year comprised 234 Punah railway sleepers, over 250 boundary posts of different species and some floor boards.

Education.

The annual nine-month vernacular course at the Forest School, Kepong, opened as usual on the 1st March and was attended by thirty-five students drawn from all States in the Federation, and also from Brunei and North Borneo. As soon as hostel accommodation has been built it is hoped to increase the number of students attending the School to fifty. This scheme has already been approved by Government but funds for the work have not yet been allocated (The Cubitt Prize for the best all-round student was won by Forester Che Rose bin Aroff of Kedah; five students gained "credit" certificates and twenty-five others satisfied the examiners.)

Advanced training was given to two probationary Sub-Assistant Conservators, one of them from North Borneo, and seven Timber Inspectors were given a course in timber identification and elementary wood technology.

Finance.

Revenue for the year totalled \$4,661,505 (\$4,348,774) against an expenditure of \$2,088,402 (\$2,007,232), giving a surplus of \$2,573,103 (\$2,341,542). The continued state of emergency had an adverse effect on production and consequently on revenue which would have been well over \$5 million had the year been normal. Expenditure on silvicultural work was again well below the Estimates due to bandit activity in many forest reserves.

Game.

The Game Department Report for 1949 states that with the exception of the King George V National Park all services continued to be curtailed owing to the state of Emergency and that a high proportion of the Staff remained seconded for Special Duties with the Security Forces.

The following Game Licences were issued—Big Game 3; Deer and Game Birds 33; Deer 354; Game Birds 780.

In addition to conservation the Department undertakes the control of animals in defence of life and property. Five hundred and eighteen calls for assistance were received and 11 elephants, 14 tigers, 1 panther, 3 deer, 1,230 wild pigs and 1,258 other animals were destroyed on control operations. Animals were driven away on numerous occasions from cultivated areas.

Game Reserves and Sanctuaries were upkeep and patrolled in so far as circumstances permitted. The Sungkai Game Reserve was an exception. In this Reserve maintenance had to be abandoned on account of bandit activity.

The King George V National Park remained undisturbed by bandits, squatters or other unauthorised persons. As a precautionary measure development was curtailed and funds allotted for this purpose were utilized on security work. The Headquarters at Kuala Tahan were enclosed by a wire fence and six strong guard posts with search lights were erected within the perimeter of the fence, these were manned by Special Constables and Game Rangers night and day. A lighting plant and wireless transmitting and receiving set were also installed, the latter maintaining direct communication with Police Headquarters.

No new paths were opened up and maintenance was confined to paths in the southern area of the Park. Artificial feeding grounds were maintained and interesting observations on fauna both large and small were recorded. A collection of fish and snakes was made for Raffles Museum for the purpose of scientific research.

Animal Husbandry.

The conservation and increase of domestic livestock is an important feature of the rural economy of the country in order to satisfy, as far as possible from local sources, the country's demands for meat, milk and other products of animal origin, to meet the agricultural needs of animals for the tillage of the padi-fields and to maintain soil fertility.

The legislation introduced in 1946 to prevent the indiscriminate slaughter of potential breeding stock was continued throughout 1949 in most States and Settlements and its results are becoming evident in the steady increase in the numbers of all livestock, except oxen and sheep, during the past three years to a point where they are within striking distance of pre-war figures. This is particularly gratifying in view of the fact that the continued shortage of slaughter cattle from outside sources during the year has meant that the country has had to rely on its own beef resources to an extent greater even than that during the previous two years.

The livestock census figures for 1949, compared with those for 1948 and a reasonably typical pre-war year (1939), are as follows :

	1949.	1948.	1939.
Buffaloes	212,200	202,900	217,000
Oxen	235,400	235,900	287,700
Goats	206,700	174,400	300,000
Sheep	20,600	19,300	31,500
Swine	350,900	357,500	599,400
Equines	700	700	600

The increase in the number of buffaloes, which are of paramount importance for rice production, is most satisfactory while the slight drop in the case of oxen need not cause undue concern when it is remembered that these animals have to bear the brunt of the local demands for beef. Requirements of fresh mutton are met to a large extent by importations of live sheep and, to a lesser degree, of goats from Australia ; this is reflected in the increase in the local goat population.

The unsettled conditions made the livestock census collection a difficult task in many parts of the country and there is little doubt that the figures in the above table err on the low side. This is especially true in the case of pigs, the enumeration of which presents particular difficulties, and estimates, based on the known slaughter and export figures, indicate that the correct total is nearer 550,000. The local pig industry was, in fact, so flourishing as to be able not only to meet all the local demands for pork in the Federation of Malaya but also to supply over 115,000 pigs to the Singapore markets during the year.

Value of Livestock.

The total value, based on current market prices, of the domestic livestock in the Federation of Malaya is estimated at approximately \$134,000,000 as follows :

123,500 adult Malayan swamp buffaloes at \$250 per head	\$30,875,000
85,000 young Malayan swamp buffaloes at \$100 per head	8,500,000
1,900 adult Murrah buffaloes at \$370 per head ..	703,000
1,800 young Murrah buffaloes at \$200 per head ..	360,000
113,600 adult agricultural and draught oxen at \$190 per head	21,584,000
73,800 young agricultural and draught oxen at \$90 per head	6,642,000
23,100 adult milking cattle at \$300 per head	6,930,000
24,900 young milking cattle at \$100 per head	2,490,000
206,700 goats at \$25 per head	5,167,500
20,600 sheep at \$20 per head	412,000
550,000 (estimated) swine at \$55 per head	30,250,000
10,000,000 (estimated) poultry	20,000,000
Total ..	<u>\$133,913,500</u>

The extent to which the country relied on its own resources to fulfil its meat requirements except in the case of sheep, most of which were imported from Australia, is illustrated in the following table :

	Buffaloes.	Oxen.	Goats.	Sheep.	Swine.
Known slaughter * ..	16,414 ..	26,555 ..	34,043 ..	31,232 ..	507,747
Imported into the Federation of Malaya for slaughter	1,255 ..	2,702 ..	1,351 ..	32,161 ..	24
Bred in the Federation of Malaya	15,159 ..	23,853 ..	32,692 ..	— ..	507,723

* These figures do not include a relatively large number slaughtered in kampongs, estates, etc., the statistics of which are not available. The dependence of the country on its own livestock is therefore even greater than is shown by this table.

There was an improvement in the availability of imported animal feeding stuffs during the year thus rendering the task of the dairy cattle keepers and pig rearers slightly easier. There was correspondingly a slight drop in the price of slaughter swine towards the end of the year.

Work on the Veterinary Department's two Animal Husbandry Stations at Kluang and Seremban progressed steadily. At the larger Station at Kluang it was directed mainly towards a consolidation of past development and the farm now extends over nearly 4,000 acres and carried, at the end of the year, 957 buffaloes and oxen. This Station is the first of its kind in Malaya to raise cattle in such large numbers and its growth has presented certain problems not met with under the ordinary conditions of cattle rearing in this country. These problems are gradually being solved during which time many valuable observations on the conversion of land to pasture, the use of farm machinery and the rearing of buffaloes and oxen, especially calves, are being made.

During the year over 200 calves were born on the farm and successful methods were evolved of combating calf mortality, the high incidence of which is a common feature of cattle rearing in Malaya. Steps were also taken for the establishment of groups of selected foundation stock from among the cattle on the Station, the more inferior specimens being culled and sold. A dairy herd of 55 oxen and Murrah buffaloes was maintained. The Station produced a revenue of \$40,000 from the sale of stock, 6,200 gallons of milk and 3,000 lbs. of ghee.

Livestock Diseases and Veterinary Research.

The country continued to remain free of the common cattle epizootics of the tropics and no case of rinderpest, tuberculosis, foot and mouth disease, or contagious abortion was detected during the year.

Small outbreaks of hæmorrhagic septicæmia occurred in Kedah and Trengganu but were quickly suppressed by local quarantine measures and the prophylactic inoculation of in-contact animals. It is worthy of note that, the vaccine used in the case of the Trengganu outbreak was flown and parachuted to the veterinary officer-in-charge there.

A small outbreak of suspected malignant catarrh among cattle occurred in Kelantan and in Perak a case of blackquarter, a rare disease in Malaya, was observed.

Work on the treatment of liver-fluke disease was extended in Pahang and Malacca where over 3,000 buffaloes, 50 oxen and 300 goats and sheep were treated with hexachlorethane with good results. This campaign is proving very popular with the *Ra'ayat* and requests for the drug are increasing.

There were a number of instances of cattle mortality as a result of grazing on pasturage in estates that had been sprayed with arsenical compounds. In early cases of arsenical poisoning antidotal treatment with sodium hyposulphite gave fairly good results.

Swine erysipelas was diagnosed in some pig carcasses in Malacca. This was the first time this disease has been recorded in Malaya and investigations are being continued.

The outbreak of rabies in the northern half of the country which started in 1946 showed no real signs of abating. The unsettled conditions in many parts of the country continued to prove a great handicap to the dog shooters' activities against stray and unmuzzled dogs in kampongs, estates and towns and militated greatly against successful enforcement of adequate eradication measures. Experiments were made in the use of nets and lassos as alternative methods of catching dogs and these experiments were attended by some success. More than twenty thousand dogs were destroyed by various means in all parts of the Federation and over 900 dogs were detained under veterinary observation as rabies suspects. Known positive cases of rabies in animals totalled 128, made up of 121 dogs, four calves, one buffalo and two goats, the incidence being highest in Kedah, Perlis and Perak with fewer cases in Province Wellesley, Kelantan and the northern portion of Selangor contiguous with Lower Perak.

Poultry rearing is an important feature of the rural economy of the country. Prior to 1947 outbreaks of Ranikhet (Newcastle) disease which annually claimed many thousands of birds proved a severe handicap to successful poultry rearing; since that year however the threat of this scourge has been virtually wiped out by the use of a vaccine originally obtained from India but now prepared in the Veterinary Department's Research Laboratory. Its efficacy has been proved in the field. All opposition to its use has now been removed and the demand for the vaccine is steadily increasing. Notwithstanding the limitations placed on travelling by the Emergency it was possible to vaccinate over 558,000 birds during the year, thus bringing the total since the campaign was started to nearly one million birds. The service is given free to poultry owners.

Much progress was made with the work of the Veterinary Research Laboratory in spite of the inconvenience imposed by its enforced stay in temporary quarters at Tanjong Rambutan. The production of Ranikhet disease vaccine was the main undertaking and nearly one and a half million doses were distributed for use in the field, large quantities being supplied to the Colony of Singapore and lesser quantities to Hong Kong and Sarawak. Hæmorrhagic septicæmia vaccine was also prepared. A good diagnostic service in conjunction with field officers was developed and investigational work on blackquarter, swine erysipelas, swine pox, melioidosis in horses, fowl pox and fowl cholera was carried out.

One Veterinary Scholarship, tenable in the United Kingdom, was awarded to a locally-born candidate.

Fisheries.

The total recorded fish landings for 1949 show an appreciable increase over those for 1948 and there has been a corresponding increase in the number of fishermen and gears licensed. This in part reflects an improved efficiency in the Fisheries Department in the compilation of statistics, and in part favourable fishing seasons. Two features in the weather call for notice. The first was exceptionally quiet weather on the North-East Coast during the early months of the year which enabled the fishermen to operate

more than is usual. The second was an exceptionally bad storm on the West Coast in July during which considerable damage was done to fixed traps and craft.

Road transport facilities improved during the year due to the availability of new motor lorries, and at least one concern has adopted a diesel lorry. Road transport by motor lorry is regarded as the most important means of distributing fresh fish, the restricted area covered by the rail system combined with its comparatively small service makes it incapable of economic adaptation to advanced methods of fresh fish distribution at the level required for Malaya.

Ice was adequate in supply throughout the year, but there has been considerable variation in price from centre to centre. This is largely due to the varying charges for supply of electric power and water at different places.

Owners of craft operating from Malacca and Port Swettenham to the coast of Sumatra according to traditional practice were faced with increasing difficulties put in their way by Dutch regulations. Moreover, in both Burma and Siam enforcement of regulations has hindered fishing and trade in salt fish. Some craft have been confiscated and their crew taken into custody. The earlier friendly atmosphere of *laissez faire* among neighbouring fishing fleets no longer obtains.

The supply of gear has improved through the year, although developments in China occasioned a temporary sharp rise in the price of materials of Chinese origin, and the devaluation of Sterling has caused a permanent increase in the price of cotton yarn and twine from hard currency sources.

The emergency has affected the fishing industry little. In various parts of the country, Malay youths have left the precarious livelihood offered by fishing for the security of employment offered by the special constabulary. Chinese fishermen have filled the gap.

In certain isolated Chinese fishing communities such as Gula and Pasir Hitam in Perak, Pulau Ketam in Selangor and Pulau Kukub in Johore, the male population lives almost entirely by fishing. While the population is increasing the fishing grounds which they exploit are not and it may become necessary to restrict licensing to prevent overfishing. There will thus be either more men per fishing unit which is a highly undesirable trend in an industry which is already over-manned by modern standards, or unemployment among a young male section of the population, who are trained only for one industry from which they become debarred.

Experimental work was carried out during the year on the preservation of the local materials with which fishing traps are constructed. The materials used were chemical compounds sold under proprietary names by importers. With one of these most satisfactory results were obtained which showed that the effective life of certain types of trap could be trebled when treated. Action is now being taken to extend this work, and to induce importers and dealers to put up small quantities which can be purchased inexpensively by the fishermen. The use of wire netting in place of split bamboo has been promoted for certain types of trap in view of its greater effectiveness and economy.

The padi-field fish "Ikan Sepat Siam" has been distributed to a number of new padi areas. In additions shipments of this valuable fish by sea and air have been arranged to other Colonial territories. Shipments have been made to the West Indies and arrangements are being made to send them to the Gambia.

Work on the Empire Fresh-Water Fish-Culture Research Institute started in October.

Local fishermen's committees are being promoted and one or two are already functioning. The object is to obtain collective opinion and to promote the assumption of responsibility among the raya'at, for the discussion of development, both of the industry and trade. From such committees it is hoped that Co-operative Societies may stem.

The Research Officer (Marine) has continued his studies on the fundamental productivity of the Straits of Singapore. He has completed a lengthy thesis, the first of a series, which is to be published by the Colonial Office in London.

Officers of the Fisheries Department represented Malaya at the first meeting of the International Pacific Fisheries Council in March. This Council promises to prove most valuable in promoting co-operation in technical development.

SUMMARY OF STATISTICS.

	1949. Katties.	1948. Katties.
Total weight of fish landed—Federation of Malaya	119,670,000 ..	89,372,000
Total weight of fish landed—Singapore ..	16,800,000 ..	15,945,000
Total weight of fish landed—Malaya ..	136,550,000 ..	105,317,000
Total No. of gears—Federation of Malaya ..	21,130 ..	17,926
„ boats—Federation of Malaya ..	21,791 ..	19,692
„ fishermen—Federation of Malaya	70,889 ..	64,120

REVENUE.

	Settlement and State.	Federal.	Total.
Boats.	Fishing Gear.	Miscellaneous.	Miscellaneous.
\$15,059.80	\$48,934.00	\$30,348.42	\$2,142.78
			\$96,485.00

(ii) MINING.

Tin Mining.

Rehabilitation of the industry has progressed despite the adverse effects of the Emergency. The number of mines working has increased from 633 at the end of 1948 to 686 at the end of 1949.

Financial assistance through the various loan boards continued as in 1948 and the supply position of engineering materials, coal and electric power improved.

PRODUCTION OF TIN-IN-ORE IN LONG TONS, JANUARY-DECEMBER, 1949.

European Mines	32,802
Chinese Mines	19,487
Other Sources	2,621
Total ..	54,910

CATEGORIES OF OPERATING TIN MINES.

At end of	Dredges.	Gravel pump mines.	Hydraulic mines.	Other mines.
1939	96 ..	538 ..	33 ..	250
1940	104 ..	733 ..	34 ..	182
1941 (Sept.) ..	103 ..	668 ..	31 ..	160
1945	Nil ..	* ..	* ..	*
1946	18 ..	102 ..	23 ..	73
1947	56 ..	323 ..	24 ..	85
1948	67 ..	464 ..	22 ..	80
1949	76 ..	518 ..	19 ..	73

PRODUCTION OF TIN-IN-ORE IN LONG TONS.

1939 Jan.-Dec. ..	44,627	(Influenced by Tin Restriction)
1940 Jan.-Dec. ..	80,651	
1941 Jan.-Sept. ..	60,292	
1942 Jan.-Dec. ..	15,748	} Japanese occupation.
1943 Jan.-Dec. ..	26,000	
1944 Jan.-Dec. ..	9,309	
1945 Jan.-Dec. ..	3,152	
1946 Jan.-Dec. ..	8,432	
1947 Jan.-Dec. ..	27,026	
1948 Jan.-Dec. ..	44,815	
1949 Jan.-Dec. ..	54,910	

Coal.

The only coal mines operating in the Federation of Malaya are situated at Batu Arang, Selangor. Production of saleable coal increased from 375,460 tons in 1948 to 386,898 tons in 1949.

On a number of occasions the rate of production was insufficient to meet consumers' demands but this improved towards the end of the year. Generally speaking, the rehabilitation of the collieries has been almost completed and an increased output is expected in the near future to meet all potential requirements.

A deep drilling programme has been designed with a view to ascertaining more accurately the extent of the coal field but commencement of the work has been delayed owing to the emergency.

The coal is non-coking and has a high moisture content. It is used by the railways, power stations and for various industrial purposes.

COAL OUTPUT FROM BATU ARANG.

Year.	Tons.	Value. \$
1939	441,025 ..	2,431,073
1940	781,509 ..	5,841,778
1941	687,000 ..	5,527,000
1942	244,590 ..	} Not known
1943	489,442 ..	
1944	409,100 ..	
1945	226,702 ..	
1946	224,674 ..	3,707,121
1947	226,301 ..	4,176,368
1948	375,460 ..	7,696,930
1949	386,898 ..	7,931,409

Gold.

The Raub Australian Gold Mines Ltd. in Pahang produced almost the entire output of gold for the year. There was a small production from tin dredging and gravel pump operations in the Bidor area of Perak, and from certain dredges in Selangor.

PRODUCTION OF RAW GOLD.

Year.	Troy ozs.	Value.
		\$
1939 Jan.-Dec. . .	40,238 ..	2,457,045
1940 Jan.-Dec. . .	35,689 ..	2,191,805
1941 Jan.-Sept. . .	24,804 ..	1,494,230
1942	1,024 ..	} Not known
1943	2,213 ..	
1944	1,212 ..	
1945	287 ..	
1946	445 ..	
1947	5,312 ..	350,583
1948	10,212 ..	708,713
1949	13,601 ..	943,909

Bauxite.

The Emergency has severely restricted Bauxite prospecting. No preparations were made during the year to commence mining operations on any of the known deposits of Bauxite.

Iron Ores.

Further progress has been made by the Eastern Mining and Metal Corporation in the development of the ex-Japanese mine at Bukit Besi, Dungun, Trengganu and the mine came into operation in December, 1949, producing 7,966 tons. Exports of ore from a stock pile left by the Japanese were made throughout the year.

A small production of iron ore from Perak during 1949 was used as "jig ragging" on dredges.

PRODUCTION OF IRON ORE IN MALAYA.

		Tons.								
Year.		Perak.		Johore.		Kelantan.		Trengganu.		Total Malaya.
1939	..	768	..	681,886	..	210,930	..	1,048,937	..	1,942,521
1940	..	957	..	—	..	—	..	—	..	957
1941	..	715	..	—	..	—	..	—	..	715
1942	..	116	..	—	..	—	..	90,660	..	90,776
1943	..	17,643	..	—	..	—	..	30,718	..	48,361
1944	..	10,441	..	—	..	11	..	1	..	10,453
1945	..	13,375	..	—	..	—	..	—	..	13,375
1946	..	—	..	—	..	—	..	—	..	—
1947	..	888	..	—	..	—	..	—	..	888
1948	..	641	..	—	..	—	..	—	..	641
1949	..	424	..	—	..	—	..	7,966	..	8,390

Manganese Ores.

There has been no prospecting or exploitation since the war.

Tungsten Ores.

Scheelite—Production for the period January to December, 1949, was 30 tons.

Wolframite—Production during the year amounted to 28 tons.

Ilmenite.

This mineral is the chief constituent of a residue from the process of the recovery of tin-ore known as "amang", from which it is obtained by magnetic separation. Only selected dumps of "amang" where the ilmenite content is high are so retreated.

EXPORTS OF ILMENITE.

	Tons.		
1939	11,098
1940	2,555
1941 Jan.-Sept.	44
1942-45	Not known
1946	Nil
1947	13,081
1948	13,566
1949	19,718

Kaolin (China Clay).

This mineral is being worked on a small scale in Perak and Selangor, chiefly for use in local industries.

The principal sources are Tapah, Perak, Cheras, Selangor, and South Johore. There are large deposits available elsewhere in the country.

GEOLOGICAL SURVEY.

Detailed geological mapping, in order to determine their mineral resources, are in progress near Kuala Lipis, Bentong and Jerantut. Owing to the unsettled conditions field work was, however, very restricted and trips into the jungle were reduced to a minimum. One officer unfortunately was killed, whilst on duty, by bandits in Trengganu.

Field work in the Kuantan area and in part of North Selangor has been completed and the memoirs on these areas together with geological maps are awaiting publication. A memoir on the geology and mineral resources of the Merapoh-Chegar Parah area of N.W. Pahang is in the hands of the printers.

Identification of minerals, mineral analyses and chemical assays were carried out for government departments and for mining companies.

SURVEY.

Emergency demands did not materially affect normal progress except in the Topographic and Cartographic Branches.

Revenue Survey.

The progress made during 1949 has been satisfactory, for 24,743 lots were surveyed and 4,372 miles of linear traversing completed as compared with 25,698 lots and 5,000 miles of traversing in 1948.

Bandits have interfered less with normal field work than had been expected, although in a number of cases it was considered prudent to transfer field parties to areas considered "safe".

The survey of the Temerloh-Maran road for the Public Works Department was completed under military escort.

Topographical Branch.

The Branch completed 6,896 square miles of emergency one inch mapping from aerial photographs and 2,386 acres of large scale rigid mapping by ground survey during the year. Parties from Revenue Survey Divisions and a small R.E. party assisted with the emergency mapping. Standard one inch mapping (programme for completion of the one inch map of Malaya) was interrupted by emergency mapping, but one field party continued and completed field work for 505 square miles; a further area of 872 square miles was in hand at the end of the year.

The revision of the Malayan Triangulation was continued and 92 points were revised covering Trengganu and East Pahang. The secondary triangulation of Trengganu was commenced in conjunction with standard mapping in that State.

Cartographic Branch.

The revised State Maps of Negri Sembilan and Malacca were published during the year.

The new 6 miles to one inch map of Malaya was ready for printing early in the year but the constant heavy Emergency demands have prevented publication.

The Branch worked at high pressure during the year and satisfied heavy demands for Emergency maps for the Security Forces, Loan Bonds, Petrol Coupons, Identity Cards, Synoptic Charts and Propaganda leaflets.

The value of the years production was \$297,853.97 against \$280,911 in 1948.

The value of map sales and free issues was \$64,387.35 against \$53,710 in 1948.

As in 1948 the sale of maps was restricted in the interests of security.

Instrument Repairing Branch.

Further machinery was installed during the year, with the result that the Branch is in a position even better than in 1948 to undertake repairs and maintenance of all types of Scientific and Technical instruments. This was evidenced by the increasing calls made on the Branch by Government Departments, the Armed Forces, private firms and Research Institutes. As Custodian of Weights and Measures, the Instrument Repairer continued to verify and certify Standards. Value of work done was \$69,507.29 as compared with \$71,372 in 1948.

Training of Staff.

Only one Apprentice was recruited in July. Nine officers applied to join the Royal Institution of Chartered Surveyors as Students with a view to progressing to Probationer, Associate and Fellow. An agreement exists with the Survey Board of Examiners of Australasia whereby that Board is prepared to accept officers of the Malayan Survey Department, as candidates for its "Licence" Examination. One such officer attempted the examination but was only partly successful.

Spare time tuition was provided by senior officers of the Survey Department. Several locally domiciled officers have enrolled for a correspondence course in Surveying with the Melbourne Technical College. There were 207 candidates for the Departmental Examinations, 67 gained full passes and 64 gained post passes.

CHAPTER VII.

(Section 1).

SOCIAL SERVICES.

Education.

The outstanding event of the year was the Foundation of the University of Malaya on the 8th October, 1949, when the Right Honourable Malcolm MacDonald, P.C., was installed as first Chancellor, with imposing ceremony, in the presence of a large and distinguished gathering. Thus was born the first fruit of the Carr-Saunders Commission Report, which had recommended the creation of a University by the amalgamation of the King Edward VII College of Medicine and Raffles College. The detailed proposals of that Report had been duly considered by Select Committees of the Federation and Singapore, deliberating jointly, and both Legislatures passed in 1949 the necessary Legislation.

Towards the end of the year there was set up a Central Advisory Committee on Education, consisting of representatives of Legislative Council, Government, and all educational interests, "to advise Government on the general common policy and wide principles to be followed in Education". This Committee first met on October 13th, and is addressing itself to its important and complex task.

Chapter I of the Draft Development Plan, dealing with Social Services in the Federation and laid before the Federal Legislative Council on 15th November, 1949, included a suggested programme for education expenditure for the years 1950-55. As the expansion of educational facilities necessarily depends on provision of trained teachers in increasing numbers, this plan largely concerns itself with teacher training. It envisaged a Capital expenditure of over \$35 millions and a resultant increase of \$10.6 millions in annually recurrent expenditure. This plan has yet to be discussed with the Governments of the States and Settlements before its details can be determined for final consideration. Implementation, in its final form, necessarily depends on Government's ability to finance such projects. It is tragic that the cost of Security measures everyday requires more than would suffice to build a fine new English school, multiplication of which is so much desired by all.

THE VERNACULAR SCHOOLS.

(A) The Malay Schools.

The Malay Vernacular School, the first type of Government school to be established, has a history of close on a century. From small beginnings in Penang and Malacca there has grown a network of schools covering town and country side more or less closely

according to the state of development of each area. At the end of 1949 there were 1,433 Government and Aided Malay schools in the Federation of which 1,179 were boys' schools or mixed, and 185 were girls' schools. The preponderance of mixed schools does not indicate a policy of co-education but is rather a relic of days, happily passing, when the number of Malay girls sent to school was insufficient to justify the provision of separate schools. The figures show a total increase of 112 Government and Aided schools over those for 1948, including five girls' schools.

The increase in enrolments observable each year since the Liberation has continued. The total for the end of the year was 238,592 (boys 155,654; girls 82,938) as against 206,223 (boys 136,336; girls 69,887) in 1948. The difference represents an overall increase of 15.6 per cent. an increase of 14 per cent. for boys and of 18 per cent. for girls. It is interesting to note that this was not caused by an increased intake of either sex into Standard I, but to a larger number of children remaining on in the higher classes. This was particularly marked in the case of girls, for whom the figures show an increase of 1,102 or 51 per cent. for Standard V and 741 or 173 per cent. for Standard VI. This is a welcome change, for only by building up the top classes can there be obtained that adequate flow of properly prepared candidates for training as teachers needed to cope with projected expansion. This last is necessitated by a crying lack of schools in certain under-developed areas, by the increasing tendency for Malay parents to send their daughters to school, and by a steady natural increase in the Malay child population. These three factors will ensure the continued increase of enrolments for a long time to come.

One result of this overall increase has been overcrowding in a large number of schools. During the year there has been an increase of 43 schools, built by Government or Kampong folk, as well as a number of extensions to existing schools, with or without Government assistance. This is a small total in comparison with the need, and, in general, recourse has been necessary to a shift system of morning and afternoon classes—a proceeding to which there is an obvious objection in a climate where the afternoon is not the best time for mental effort. Only a vast building plan can relieve the situation.

A second result has been the over-dilution of trained personnel by untrained recruits. Every effort is being made to improve the situation. The two training colleges, one of which is being extended, have been filled and more than filled. In addition there have been organised in every State and Settlement teachers' training courses by which every Malay teacher now may attain greater competence and a higher rate of salary. Although the courses are but half completed, their beneficial effect is already perceptible. In the meantime plans for new training colleges have been made and incorporated in the five-year plan referred to above.

The need for efficient teacher training has been further increased by certain projected changes in the work of the schools. It is proposed to introduce the teaching of English with the purpose of providing the majority with means of access to the wealth of knowledge not available in Malay books, and the selected minority

with a preparatory grounding in English which may accelerate their subsequent progress in the English schools. It is recognised that special teachers will be required to teach the subject and some progress has been made with the training of the first batch of such teachers. At the same time a new Experimental Syllabus has been drawn up and issued, which encourages a more imaginative approach to teaching, and lays a particular stress on art and music, to which little attention has hitherto been paid. Its effective implementation depends upon the quality of the training which can be given to those who are to face the problems it creates.

To assist them in their tasks, new text-books for the use both of teacher and child have been, or are being, prepared. Where new ground is to be covered, cyclostyled notes have been prepared for temporary and experimental use until text-book needs can be more exactly known. Altogether 354,060 books have been supplied to the schools in the course of the year, including 96,100 copies of works prepared by the Malay Text-Book Bureau and issued for the first time.

The open air activities so characteristic of the Malay school were continued. The school gardens were carried on with rather more emphasis on experiment, but the competitions associated with them roused the usual interest. The Boy Scout and Girl Guide movements continued to flourish, the expansion of the latter being limited only by the inescapable financial factor. Drill and games competitions roused the usual enthusiasm among parents and friends, and were noteworthy for the increased participation of girls.

The major part of the credit for a year of steady advance in the face of difficulties created by the Emergency must go to the school staffs, whose co-operation with the Department has in almost all cases been everything that could be desired. A continuance of this relationship cannot but ensure that improvement in the condition of the schools which is the common aim.

(B) The Chinese Schools.

At the time of the establishment of the first Government Malay schools the Chinese community exhibited a reluctance to allow "outside interference" in the conduct of the little classical writing schools which then existed in some numbers. After the revolution of 1911 these began to be ousted by schools of a modern type founded by individuals, district societies, Christian Missions, etc. By 1924 the objection to any form of dependence on Government had decreased to the extent of making possible the payment of a small Government grant-in-aid to efficient schools. Since the Liberation this has been given to a much larger number of institutions.

In 1949 there were 1,338 schools against 1,364 in 1948. These included two Government schools, 29 "Old Style" schools, 41 Mission schools, 24 Estate schools, two schools on Mines and 139 night schools. Nearly all were co-educational, separate girls' schools being found only in the more conservative centres. Two schools were Middle (secondary) schools, 25 had Middle as well as primary departments and two more had the beginnings of middle departments. During the year some of the more remote rural schools closed down for one reason or another connected with the emergency.

The total enrolment in all types of school was 202,769 (boys 146,714; girls 56,055) as against 193,340 (boys 138,227; girls 54,937) in 1948. The increase shown by these figures is small, the position being essentially the same as in 1948. It can be considered satisfactory that, in spite of the closure of schools and an increased wastage, both due to the Emergency, there has been no actual retrocession.

The increase in enrolments since the Liberation has put a great strain on accommodation. Buildings are full and over-flowing. The Chinese public, as always, has made a generous contribution towards the cost of new buildings. A notable example was Mr. Aw Boon Haw's gift of \$200,000 towards the cost of a building in Penang. Altogether 26 new buildings and 59 extensions to existing buildings were erected, but the fact that 169 schools had no alternative but to conduct afternoon sessions indicates how many more are needed.

The buildings of Chinese schools exhibit the greatest variety, from impressive concrete structures rivalling all but the best Government English schools, to the narrow shop-houses of the back street and the thatched weather board huts of the countryside. Many of the least satisfactory buildings would have been condemned long since but for the evident impossibility of replacing them at present. An improvement, however, is taking place gradually but definitely, and, in view of the difficulties of the times, this is all that can be expected.

There were, including the two Government free schools in Kuala Lumpur, 22 free schools. Of these, one was maintained by the Social Welfare Department, one by a Chinese temple, one by an estate and the others by Chinese Associations and private individuals. In the fee-paying schools, fees varied from \$2 to \$5 a month in primary schools and from \$6 to \$9 in middle schools. Remission of fees was made available by Government for 3 per cent. of the children at approved aided schools whose parents were Federal citizens. Very few children qualified or applied for this grant during the year, but indications show that there will be more in 1950. In addition to this Government assistance, the schools themselves arranged free places for about 5 per cent. of the pupils, the number varying from State to State.

A second result of increased enrolments has been a corresponding increase in the proportion of inadequately qualified teachers. The staff of Chinese schools formed a class peculiarly open to persecution by the Japanese and many lost their lives. After the Liberation the school committees were forced to recruit an undue number of inexperienced teachers. This dilution of experienced staff coincided with an increase in certain of the minimum standards required for registration. To cope with the situation training classes for teachers were started in a number of centres and are described elsewhere.

The greatest deterrent to a boy or girl adopting the career of teacher in a Chinese school is not so much the low salary, but the insecurity of tenure. Although the Department of Education has recommended committees to give contracts for at least one year and preferably for longer, far too many staff changes in fact

occur. The result is that many teachers eventually seek other employment. In spite of this they have shown a commendable eagerness to improve their professional knowledge and skill, and refresher courses wherever held have been well attended.

The curriculum of the schools is that of their prototypes in China with the addition of English, often very badly taught. Steps are being taken to improve the quality of the teaching of this subject and of Physical Education and Handwork. These are referred to under the training of teachers.

The difficulties arising from the need to prepare special text-books for use in the Malay schools do not exist in the case of Chinese schools. The books at present used are all prepared by private publishers. Suggestions for their improvement have been made by the Department of Education and since 1946 all the leading publishers have in fact produced improved books. There is, however, a need for more local adaptation. A civics text-book written with special reference to Malaya is being translated and will be used in Middle schools in 1950.

The majority of schools have playing fields varying in size from those of a well provided English school to a plot little larger than the area required for the favourite game, basket ball. This is played enthusiastically by both boys and girls. Athletics too are encouraged, and inter-school sports were held in most areas during the year. A feature characteristic of the large Chinese school is the excursion or journey, undertaken usually in the holidays and extending sometimes far afield. The Boy Scout and Girl Guide movements are a recent growth in Chinese schools, but much may be hoped from them in the future.

(C) The Indian Schools.

The history of the Indian Vernacular School is shorter than and different from that of the Malay school. This is due to the preference of the mid-nineteenth century Indian population, then mainly urban, for education in English. The vernacular school appeared only with the employment of large masses of South Indian labourers in European owned estates. From the seventies a small grant-in-aid was paid to reasonably efficient schools and this system was continued with the introduction of a Labour Code which compelled estates with ten or more children of school age to maintain a school. The same Code also brought about the establishment of Government schools for the children of Government labourers. After the Liberation, Government took the important step of increasing the grant-in-aid to cover the payment of teachers on scales equivalent to those for the same grade of teacher in Malay schools, the provision of equipment and the day to day running expenses of the schools. The cost of erection and maintenance of school buildings, however, remains the responsibility of the management.

The number of Indian schools in the Federation in 1949 was 889 as against 890 in 1948. Of these 26 were Government schools, 723 Estate schools, 22 Mission schools and 118 Private Committee schools. All management of schools, with the exception of 14 Estate and 22 Committee schools, qualified for and received Government grant-in-aid. With the exception of two Convent

schools all were co-educational. This was not because of a set policy, but because the populations served are, in general, so scattered and so shifting that there is seldom a sufficient stable concentration of children to justify separate schools for girls. To this main reason may be added a shortage of women teachers. The language of instruction was everywhere Tamil with the exception of 30 Telugu, ten part Telugu, seven Malayalam, seven Punjabi, three Hindi, one Ghurka, one Gujerati and one Sinhalese school. During the year 17 schools were opened and four were closed for various reasons, but the amalgamation of 27 schools to form 13 more economic units produces an apparent decrease of one. This decrease is unreal, as the enrolment figures show an increase.

The overall enrolment was 38,743 (boys 23,819; girls 14,924) as against 35,456 (boys 21,690; girls 13,766) in 1948. The figures, though they show an increase, are not entirely satisfactory when compared with the known Indian child population. They reflect an unfortunate attitude on the part of Indian labourers who, themselves largely illiterate for the most part, think a girl would be better employed helping at home and a boy helping his parents in the field. The consequence is that many girls are never sent to school at all and the large majority of children are withdrawn after two years. The Children and Young Persons Enactment prohibits the employment of children below the age of eight years in any capacity and allows only light work of a horticultural nature or the helping of parents in the field in the case of children between the ages of eight and 12 years. The absence of birth certificates in many cases makes the strict application of this Enactment a matter of difficulty. The Labour Code prohibits the employment in any capacity of Indian children below the age of ten years and if this could be enforced it would have a beneficial effect on the enrolment figures in the higher standards. Modifications which are contemplated in the new Labour Code may well have this beneficial effect. However, the overall increase is encouraging and even more so is the decrease in the percentage of Standards I and II enrolments to total enrolments from 82 per cent. to 74 per cent. Improvement would seem to depend on parent education, unfortunately a relatively slow progress.

The material circumstances of the Indian schools are now less inferior than has been usual to those of the Government Malay schools. In one respect they appear to have an advantage, though it is one which arises from causes which are in fact retarding; they do not suffer from that degree of overcrowding which has resulted from the new Malay enthusiasm for education. The general standard of buildings continues, and must for some time continue, to leave much to be desired. There is however a movement toward a better state of affairs. A number of estates have already replaced unsatisfactory structures, and where new schools have been opened the buildings have been of an improved type. A retarding factor is the unstable price of rubber, which naturally makes estate managements reluctant to incur further capital expenditure. The furniture and other necessary equipment in the case of all aided schools is in accordance with the requirements of the Department of Education.

The total number of teachers employed during the year was 1,341 as against 1,267 in 1948 and of these 369 were trained as against 275 in 1948. Of the remaining 972, 617 are undergoing training as against 477 in 1948. These figures are encouraging, more particularly as there is every reason to suppose that the rate of improvement will be not only maintained but even accelerated, and the good effects of training are reinforced by the satisfaction brought by the revised salary rates. The result is a very noticeable general improvement in the teachers' bearing and attitude towards their task.

Out-of-class-room activities have never flourished in the Indian schools for the good reason that the very large majority of the children enrolled are very young. There has, however, been an encouraging increase observable in the course of the year, no doubt the fruit of the teachers' new enthusiasm. It will bear more abundant fruit if it, at the same time, can bring about a swelling of the enrolments of the higher classes. There can be little doubt that in time this too will come.

The English Schools.

The first English schools were established by Missionary or quasi-missionary bodies which sought and obtained subsidy from government. The history of their early growth is largely the history of the expansion of mission enterprise. It was in fact only in the last fifty years or so that government began to establish its own schools, first to supplement mission effort and later in competition with it. The dual system thus created remains, and missions continue to maintain 25 of the 71 boys' schools and 27 of the 34 girls' schools. They are paid a grant-in-aid which covers the payment of their staff at the same rates as those for government teachers and also small maintenance charges. In addition, in so far as available funds permit, government may contribute up to fifty per cent. of the capital cost of new buildings or extensions. This treatment not only has placed the mission schools on an equal material footing with the government schools but has enabled the mission bodies concerned to multiply them.

The total enrolment of Government and aided English schools was 67,266 (boys 42,764—girls 24,502) as compared with 62,758 (boys 42,271—girls 20,487) for 1948. It will be seen that the increase is in the figures for girls. The explanation is that after the Liberation far fewer of the older girls than of the older boys returned to complete their interrupted education. By 1948 the top classes of the boys' schools were full to capacity while the top classes of the girls' schools were only gradually filling up. This increase in the enrolment of girls may be expected to continue for some years. The enrolment of boys can only increase with the expansion of accommodation.

The overcrowding in schools continues. Buildings which served a pre-occupation school population of 20,000 now serve treble that number. The classrooms, with the exception of the top standards of girls' schools, are full to capacity and beyond. Many schools have allowed an overflow into hostels, dormitories, corridors,

tuck-shops, bicycle-sheds, and even into tree-shaded gardens. During the year a certain number of school buildings and extensions to school buildings were opened, amounting to 99 classrooms, including 24 replacements, and a few more classrooms were improvised in one way or another. This eased the problem in a few places but only a vast building programme can meet the general situation.

The increase in enrolments has necessarily brought about a corresponding expansion in the number of teachers employed. The major part of this took place at a time when the number of young people completing a secondary education was at its lowest and the attraction of employment in commerce at its highest. A lowering of the standards of admission to employment could not be avoided, nor could some excessive dilution of trained personnel with untrained recruits. The Normal classes which were revived as soon as possible after the Liberation have since done much to rectify a situation which, however, remains not yet satisfactory.

The organisation of the schools into nine standards plus two Primary classes, plus the Special Malay classes referred to in the following paragraph, remains as before. A few of the larger schools maintain a Post School Certificate Class to which the creation of a University has lent an added importance. Elsewhere, universities require as a condition of admission the possession of a Higher School Certificate or similar evidence of post-certificate work. The University of Malaya can be no exception. The multiplication of such classes may thus be confidently expected, and will be delayed only by difficulties of staffing.

The Special Malay classes provide a link between the Government Malay schools and the English schools. Boys and girls who have satisfactorily completed the first four (in the case of the girls three) years of the vernacular course may be selected for free admission to English schools. In these classes they are given intensive instruction in the use of the English language, and at the end of two years are normally able to take their place in the classes appropriate to their age alongside children who have been in the English school since the age of six.

The curriculum remains that of the English Grammar School type. There are, however, three matters which should be referred to. In the first place, there has been an extension of science teaching in accordance with the settled policy to make a four-year General Science course an essential part of the secondary education of both boys and girls. In the second place there has been an increasing interest in music stimulated by a Refresher Course organised by the Singapore Teachers' Union and attended by many teachers from the Federation. And in the third place, there has been a definite tendency towards freer teaching methods in the Primary Class. All of these reflect tendencies observable elsewhere and are evidence of the broadening of professional horizons which has taken place since the Liberation.

With the exception of the Malay College at Kuala Kangsar and the Malay Girls' College, Kuala Lumpur, which are wholly residential, all Government and aided English schools are essentially

day schools attended by the children resident in the locality. Many of the Government boys' schools, however, provide hostel accommodation for Malays from the rural districts and many of the Mission schools, both boys' schools and girls' schools, maintain boarding departments for which very low fees are charged.

Education in the English schools is not free. The school fees charged are \$30 (£3.10s.) for the first eight years and thereafter \$48 (£5.12s.). There is, however, a generous free place system, no fewer than 17,999 pupils out of 67,266 receiving free education or scholarships. Apart from the children admitted free from the Government Malay schools, five per cent. of the children in the Primary classes and the first six standards and ten per cent. of those in the remaining standards of each school may be granted free education. In addition, where more than two children of one family are in attendance at English schools, the children in excess of two, provided that their work is satisfactory have been similarly given free places. In a country where large families are the rule rather than the exception, this concession affects a very large number of parents.

There has been a great improvement in equipment. School furniture has almost everywhere reached its pre-occupation level. This is also largely true of school libraries. Science equipment has been restored in those schools which formerly possessed it and has been obtained by a number of other schools. Of the 53 schools teaching or making immediate preparations to teach General Science 12 have all the necessary basic equipment and facilities, 18 have partially equipped science rooms and the remaining 23 either have plans or are actually preparing to provide science facilities.

During the year 23 *petrol-gas* plants (7 large and 16 portable) were supplied through the Science Supervisor. Many schools also obtained projectors of one sort or another during the course of the year, and there are few schools still without a radio set. Indeed, the increase of mechanical aids to class teaching rouses the fear that in some quarters they may come to be regarded as a substitute for it. Equally important, as indicating a development balancing that on the scientific side, is the use being made in a number of schools of the Wire Recorder as an aid in speech training and, in one area, of the recorder or block flute as an easy and inexpensive introduction to instrumental music.

Playing fields were almost everywhere in their pre-occupation condition, but it is to be regretted that so many of the oldest established, and therefore largest, girls' schools have very inadequate facilities for games, and are so situated in urban areas that they cannot expand on their present sites. Such schools have necessarily to content themselves with badminton and netball which require a minimum of space. Hockey remains the preserve of the more fortunately placed schools. Boys' schools generally fare better and both codes of football, hockey and cricket are played according to the season. A feature of the year was the spread of Rugby

football from the North, where it has flourished for many years, to the South. This is a game from which local boys seem to gain a great deal.

The other out-of-class room activities so characteristic of the English schools continued to flourish and to expand. The Boy Scout Movement remained as popular as ever while the Girl Guide Movement continued its steady expansion. There were Literary and Debating Societies, Musical Societies, Photographic Societies, Geographical Societies and many others, all of which served to broaden the outlook of their members and to provide them with opportunities for that experience in the regulation of their own affairs which the times demand. Specially noteworthy was the increase in the number and quality of school magazines which, properly handled, can be made to serve that same democratic purpose.

At the end of the year 3,032 candidates (boys 2,442—girls 528) sat for the Cambridge School Certificate as against 2,484 (boys 1,947—girls 535) in 1948. The figures reflect the respective situations in the top classes of boys' and girls' schools already referred to. The figures for girls may be expected shortly to show a big increase. Meanwhile the Department, aware of the new situation created by the establishment of the University, is watching with interest the effect of modifications in the examination system lately introduced into the United Kingdom.

Technical Training.

Under this heading are grouped vocational schools of a post-primary type, Day Commercial Schools (although they are post-secondary) and such training institutions as are maintained by Government Technical Departments exclusively for their own personnel. The Technical and Agricultural Colleges, which are not thus exclusive and the standards of which are closer to those of the University, are dealt with in a later section.

Junior Technical Schools.

There are at Ipoh, Johore Bahru, Kuala Lumpur (2) and Penang, Junior Technical (more commonly known as Trade) Schools drawing their pupils both from the lower standards of the English schools and from the higher standards of the vernacular schools. Their joint enrolment is 332 as against 280 in 1948. In addition 97 members of the Malay Regiment attended for special training. Even so the schools are not entirely full. The only strain is on hostel accommodation. Extension in this direction would enable the schools to increase their enrolments by drawing on a wider area. The schools provide a three-year course adapted to the needs of the locality in each case. This includes some instruction in the basic general subjects including English, in Machine Shop Practice, Electrical Installation (two schools), Motor Engineering (four schools), Carpentry (one school), Bricklaying (one school), Cabinet-Making (one school) and Tailoring (one school). A certain number of

3rd year students were found employment on probation and continued to attend the school two days a week. Advisory Committees including representatives of industry continued to be of great assistance to the Principals.

Commercial Day Schools.

There are three Government Commercial Day Schools at Penang, Ipoh and Kuala Lumpur, drawing their pupils from holders of School Certificates. They provide two courses, the one in preparation for the London Chamber of Commerce Certificate papers, the other in preparation for the Higher papers of the same examining body. All three schools continue to suffer from a wastage due to the ease with which employment can be still obtained in commercial firms, before completion of training, at attractive commencing salaries.

Each school has its own advisory committee which includes representative, commercial and professional men whose advice is of great value to the Principals.

Training Establishments Exclusive to Government Departments.

Almost all Departments have some arrangements for training their personnel, but the following are mentioned as being specifically institutional.

The Department of Forestry maintains a Forest School at Kepong, Selangor, for the training of its field staff. It had an enrolment of 35 during the year, limited by the available living accommodation. It provides a nine months' elementary course in subjects which include Forest Botany, Elementary Wood Technology, Silviculture and Forest Management, Surveying and Drawing, Forest Mensuration, Forest Laws, Forest Engineering and Forest Utilization. Field work is an important part of the course, but owing to the present Emergency had to be confined to the Institute's Plantations and the Forests of Selangor.

The Medical Department maintains regional schools for the training of nurses at Johore Bahru, Kuala Lumpur and Penang. In Penang a new further development is the training of nurses to carry out the simpler forms of dental treatment. This step has been taken in view of the present acute shortage of Dental Officers.

The Malayan Railway maintains a Railway School for the training of signalmen, clerks, guards and permanent way overseers. During the first year of employment they attended for two months, during the second year for one month and during the third for two weeks. Engine drivers and fitters attend evening classes during their five years of apprenticeship.

The Department of Telecommunications maintains a Training Centre in Kuala Lumpur for the training of Junior Technical Assistants.

During the year it had an average enrolment of 45 limited by the available accommodation. The three months' course includes subjects relevant to the student's eventual departmental duties. The Centre also provides such specialist refresher courses as are required.

UNIVERSITY AND OTHER POST-SECONDARY EDUCATION.

The Federation is served by three institutions of higher education: the newly established University of Malaya, the Technical College, Kuala Lumpur, and the Agricultural College, Serdang. In addition a number of students are studying abroad.

(A) The University of Malaya.

The University of Malaya at present consists of the King Edward College of Medicine and Raffles College, both of them in Singapore. The first provided courses in the usual medical professional subjects, the second in Economics, English, Geography, History, Mathematics, Physics and Chemistry.

In practice, the qualification for admission to both institutions is a first grade School Certificate, and even the possession of this does not guarantee acceptance, so great is the demand for places. It may be expected that in accordance with practice elsewhere, the minimum qualification will soon include a Higher Certificate, or other evidence of post-School Certificate work successfully completed.

(B) The Technical College.

The Technical College at Kuala Lumpur is an institution independent of the University and under the Department of Education. It accepts both Technical Apprentices from the various Government Departments for training as Technical Assistants and, after Government requirements have been met, a certain number of private students. The qualification for admission is a Grade I or II Cambridge School Certificate with credits in English Language and Elementary Mathematics and if possible, in Science. The College provides a three-year course in Civil, Mechanical, Electrical and Telecommunications Engineering as well as Surveying. The Technical Apprentices in addition receive a year's practical engineering work with the Government Departments concerned. During the year further progress was made in restoring the losses to laboratories and library caused by the occupation and more equipment is awaited. At the end of the year there were 177 full-time students and 14 part-time students in the College. Of the full-time students, 132 were Government students, 39 Private students and six were special Malay students sponsored by State Governments and sent for preliminary training before proceeding overseas on scholarships. In addition, 62 Government students were undergoing the year of practical training in their Departments. One lecturer is on study-leave in England. Part of the College field continues to be used by the Police Department as a Traffic Centre owing to the Emergency. Towards the end of the year it was announced that His Majesty's Government had under the Colonial Development and Welfare Act, made the generous grant of \$4.85 million for the erection and equipment of badly needed new Technical College buildings.

(C) The College of Agriculture.

The College of Agriculture at Serdang, a few miles outside Kuala Lumpur, is similarly independent of the University and is under

the Department of Agriculture, for the training of whose personnel it primarily exists. It offers two courses, a Senior and a Junior. The students for the former are School Certificate holders recruited from the English schools by a system of Scholarships for training as Agricultural Assistants in the Federation. A small number of students are also accepted from other Malayan Governments, and remaining vacancies are filled with private students. They follow a two-year course which it is intended to extend next year to three. The work consists of lectures, laboratory work and field work planned to give the maximum experience of all important field crops from field to factory. During the year there were 14 students in the first year and 20 in the second. The Junior course lasts for one year only, is given in Malay and is intended primarily for the training of Junior departmental personnel recruited by scholarships from the vernacular schools. During the year 37 attended this Junior Course, including 20 Penghulus.

(D) Overseas.

The students proceeding overseas for higher education fall into three categories: Queen's Scholars and Fellows selected from the most successful students of the constituent colleges of the University for post-graduate training, junior personnel of Government Departments selected for training to fit them for senior posts and private students studying on their initiative and at their own expense.

The Queen's Scholarships and Fellowships are the most coveted awards. Two Scholarships and one Fellowship are awarded annually, one Scholarship and the Fellowship in alternate years being reserved for Malays. The Scholarships provide for four years of study in the United Kingdom, the Fellowship for two. There are at present seven Fellows and five Scholars at various institutions appropriate to their chosen professions.

The Departments of Agriculture, Civil Aviation, Drainage and Irrigation, Education, Telecommunications and Welfare together with the Post Office have students in the United Kingdom working either in institutions of higher education or attached to Government Departments. There are 31 such scholars, to whom may be added, for the sake of convenience, 15 Colonial Development and Welfare Scholars and four British Council Scholars who, with one exception, are members of Government Departments. The number of additional Departmental Scholars chosen to commence their studies in 1950 is not available, but it is known that 11 additional Colonial Development and Welfare Scholars and two additional British Council Scholars have been selected and will leave for the United Kingdom next year. There are well over a hundred private students studying in different institutions in the United Kingdom and Australia; among them a few holders of scholarships limited to residents in certain areas, notably Kedah and Johore. There are also a few persons studying in the United States of America, including certain teachers awarded post-graduate scholarships by the American Methodist Episcopal Mission, and still others in institutions in India and China.



A group of students at the Malay Women's College, Malacca.



The mosque at Pekan, Pahang.

TRAINING OF TEACHERS.

Teachers in Malay Vernacular Schools.

There are at present two Colleges for the training of teachers for Malay Vernacular Schools, one for the men with an enrolment of 434 at Tanjong Malim, and one for women with an enrolment of 111 at Malacca. Both provide a three-year course which includes an extension of the general education received in the Malay schools together with instruction in the theory and practice of teaching. The new syllabus referred to above necessitated some adjustment of schemes of work made none the easier by a present lack of necessary text-books. The teaching of English, commenced in 1948 with the object of giving the students access to knowledge both general and technical not yet available in their own language, has been continued with satisfactory results. Both institutions lay a considerable stress on Art and Handwork of various kinds, including in the case of women, needle-work and domestic science. At both Colleges, out-of-class-room activities of all kinds are encouraged. Among these, games naturally figure largely, and this year the Malacca College has added hockey to its list. The Boy Scout and Girl Guide Movements play their important part, the latter receiving particularly enthusiastic support. The Malacca College is at present being extended to accommodate additional students in 1950.

These institutions, however, are quite inadequate to deal with the greatly expanded recruitment consequent upon the large increase in enrolments in Malay Schools since the Liberation. The situation which has resulted is a serious one. The influx of an unprecedentedly large number of untrained recruits threatened a sharp decline in the efficiency of the schools. The need for additional training colleges is recognised, but their provision has been delayed by financial considerations. As a temporary measure weekly training classes have been organised in every State and Settlement at as many centres as has been found practicable. A scheme of work has been drawn up at as high a level as possible with the instructors and books available. The standard of work cannot, of course, equal that of a training college, but its value has been recognised by the creation of salary scales for teachers thus trained which, though below those for the College-trained teachers, are well above those for the untrained. Every teacher in the latter class with the ambition to increase his potential contribution to the cause of Malay education and at the same time to improve his own material circumstances has now the opportunity to do so.

There exists also a second type of class organised in anticipation of the introduction of English into the Malay schools along the lines of an experimental syllabus published at the beginning of the year. The students have English school qualifications and attend a two-year course of lectures in English and the Theory and Practice of Teaching with special reference to the teaching of English under the conditions of the vernacular school. During the period of training they are attached to English schools but are given periods of realistic school practice in vernacular schools.

The numbers are small, but this is not due to any restriction on the part of Government, but to the very moderate enthusiasm of the English educated Malay for the work. These classes are attended also by students preparing to teach English in Chinese and Indian vernacular schools.

Teachers in Chinese Vernacular Schools.

The training of teachers for Chinese schools is managed rather differently, due to the fact that, with two exceptions, they are not Government institutions. There are no training Colleges, but so-called Senior Normal Classes are organised in four centres in accordance with a syllabus drawn up by the Department of Education. They are not separate entities but are attached to one Government and three Aided Chinese schools. The students must have completed the three-year Junior Middle Course and elect to enter the Senior Normal Class rather than the usual Senior Middle School classes. In addition to the main Middle School subjects they receive instruction in the Theory and Practice of Teaching. Students successfully completing the course are accepted for registration as teachers.

A second type of class also financed by Government resembles that organised for untrained Malay School teachers. It provides a two-year course, to be extended in 1950 to three years, for teachers actually employed in the schools but without the minimum qualifications for registration. During the year 366 students attended the first-year and 197 the second-year.

Handwork classes were started towards the end of the year at Kuala Lumpur and were attended by 30 men and 40 women drawn from Selangor and the adjoining State of Negri Sembilan. The men and five of the women attended a general course covering the usual primary work. The remaining 35 women attended a course in needlework including dress cutting.

Chinese students also attended the training classes organised to prepare students to teach English in the vernacular schools. As the employees of private institutions, they were not attached to English Schools as were Malay and Indian students preparing for work in Government Vernacular Schools, but remained with the employing school. Seventy-two Chinese students attended the first-year and 5 the second-year classes.

Courses of Physical Training were organised, one in April at Kuala Lumpur and one in July at Tanjong Malim. The first course of an experimental nature was attended by 80 Selangor teachers while the second was attended by 114 teachers drawn from all over the Peninsula. Both courses were given by the Superintendent of Physical Education for the Federation.

Teachers in Indian Schools.

The facilities for training teachers for Indian Vernacular Schools resemble those organised for untrained teachers in Malay Schools. Training classes have been organised at eleven centres, which provide a three-year course extending the general education received in the vernacular school and providing instruction in the Theory and

Practice of Teaching. The first-year course was attended by 239 teachers and the second-year course by 250. The third-year course will be organised in 1950. Its satisfactory completion will qualify a teacher for emplacement on the same salary scale as that for Government Malay School teachers trained under similar conditions.

A second type of class at a lower level was organised to enable otherwise suitable candidates to obtain the Standard VII Certificate which is the minimum qualification for registration as an untrained teacher. The necessity arises from the present impossibility of organising higher classes in the schools for reasons explained above. It is likely that the classes will continue to be needed as long as these factors continue to operate.

A special course in modern Primary Method for instructors in the training classes was given in September at Kuala Lumpur by members of the Headquarters staff, including the Superintendent of Teacher Training. The speedy appearance in the schools of the methods and apparatus advocated was sufficient proof that those who attended the class had faithfully handed on what they had learned.

Another new departure was the organisation in April and September of intensive Physical Training Courses for selected trained teachers with the object of fitting them to become instructors in their own areas. The course was given by the Superintendent of Physical Education for the Federation at his headquarters at Tanjong Malim. The same forty teachers attended both courses.

Teachers in English Schools.

It has in the past been found impossible to organise training colleges for the training of teachers for Government and Aided English Schools. In the absence of training colleges, training has been and still is given in training classes known as Normal Classes, staffed by senior members of staffs of the English Schools and attended by student teachers attached to those schools.

Originally these classes extended the whole general education provided by the English School and in addition provided instruction in the Theory and Practice of Teaching. Since the Liberation the course has been restricted to English Language and Literature and the Theory and Practice of Teaching. For students necessarily employed as full time teachers, the burden of the full course would have been too heavy. Wherever possible, however, special local facilities have been exploited, and in some centres students have received valuable experience through musical, dramatic and similar activities. In certain areas, too, special use has been made of discussion groups with a view to stimulating independence of thought and judgment. The course is of three years' and admission is restricted to persons employed or about to be employed in Government and Aided English Schools. Holders of the Diploma of Raffles College, pending the re-organisation of the Post-Graduate professional training given there before the Occupation, are admitted direct to the Third-Year Class.

To make it possible for certain teachers in isolated schools remote from Normal Class centres to benefit by the type of training given, there has been evolved a correspondence course directed by the

Superintendent of Teacher Training from her office at Kuala Lumpur. The efficacy of the system depends on the disposition of the student, but, where there exists a serious desire to improve, the results are not inferior to those obtained in the Normal Class proper.

A welcome innovation was the organisation by the Singapore Teachers' Union of a Refresher Course for English School teachers in Singapore and the Federation. It was in fact something more than a Refresher Course in that it diverged from the beaten track of the Normal Class and, with the aid of a very strong team drawn from the University and the Departments of Education of both Singapore and the Federation, provided lectures and classes on those very aspects of up-to-date teacher training which the vagaries of local staffing make impossible to include in a general scheme for the Federation. Three hundred and sixty-six teachers attended from the Federation, including 159 women. The good effects are evident especially in a more receptive attitude to new aspects of the educational process. It is to be hoped that similar courses will be organised in the future.

Physical Conditions.

The least satisfactory aspect of school conditions is the overcrowding already referred to. There is an ever increasing demand for places both in the English and the vernacular schools, and overcrowding is the only alternative to turning away even more children than must be turned away at present.

In other respects a great deal is done to ensure the good health and proper physical development of children. Physical Training is an integral part of the curriculum of every type of school. The steps taken to improve the standard of instruction in the Chinese and Indian Schools have been noted elsewhere, as also the welcome new enthusiasm for Physical Training in Malay Girls' Schools. Organised games are carried out in all schools on a larger or smaller scale according to the extent of the available space.

At most schools satisfactory arrangements exist for the provision of cheap nourishing food for such pupils as are not able to return home for the mid-day meal. Further the Medical Department operates a Nutritional Feeding Scheme by which undernourished children are given supplementary feeding either in the form of cooked meals or of biscuits, cocoa, milk and similar light foods.

Social and Moral Welfare.

Religious instruction is given in the English Schools conducted by Mission bodies to children of their own persuasion and to others whose parents make no objection. They frequently provide also some sort of ethical instruction for other pupils not attending the religious instruction. In Government English Schools no direct religious instruction is given, but religious or quasi-religious instruction is included in the time tables of Government Malay Schools in some areas. In many cases also their buildings are used for Koran classes in the afternoons.

In all schools, whether religious instruction is given or not, great reliance is placed on the effect upon character of a properly organised community life including participation in team games, the Boy

Scout and Girl Guide movements and the out-of-school activities which exist in some shape or form in all types of schools.

Education for Citizenship, made more important by the approach of self-government, is similarly provided both directly through the teaching of Current Events and Civics and in some cases through the organisation of School Councils and School Parliaments and indirectly through the Prefect System and those same activities which have been referred to in the previous paragraph.

Adult Education.

Education for adults is provided in evening classes organised in all States and Settlements. These include special classes organised by the Technical College in Kuala Lumpur both for its own graduates and others in subjects needing the heavy equipment not available elsewhere. In general the limiting factor is the extent of the public demand. The most popular subjects are everywhere those commercial subjects which promise a fairly immediate cash return. English and certain technical subjects, too, attract large enrolments. Other classes were organised in a variety of subjects from economics to musical appreciation, but it is perhaps a sign of the country's cultural immaturity that a markedly stronger interest was shown in utilitarian subjects than in the purely cultural.

Many of the classes were designed to prepare their students for the examinations of the London Chamber of Commerce and the London City and Guilds Institute. In fact a large number of candidates sat for the examinations of both, and a smaller number for examinations organised by other bodies. That there are also more ambitious adult students working by themselves is shown by the success of Federation candidates in the Intermediate and Final Examinations of the University of London.

The functions of the Department of Public Relations may be appropriately defined as embracing adult education in its widest sense, in so far as its activities are primarily concerned with the dissemination of information among the rural population, the majority of whom are illiterate. (*See Chapter VII, Section 5.*)

Literacy.

(a) Literacy in Malay, English, or any other Language.

The following table shows the percentage literacy rates for the Federation of Malaya at the time of the 1947 Census. In the main figures of this table, persons of all ages (i.e., from birth upwards) who can read and write a simple letter in Malay, English, or any other language are shown as being literate. The figures in brackets are corresponding percentages in respect of persons 15 years of age and over.

			Males.		Females.		Persons.
All Races (excluding	Nomadic						
Aborigines)	..	..	44.5 (57)	..	15.7 (16.5)	..	30.9 (38.4)
Europeans	..	..	91.1 (98.8)	..	87.4 (98.3)	..	89.7 (98.6)
Eurasians	..	..	79 (96)	..	74.2 (89)	..	76.5 (92.3)
Malays	..	..	38.6 (50.4)	..	12.1 (11.7)	..	25.1 (30.5)
Other Malaysians	..	..	32.8 (40.8)	..	8.64 (8.44)	..	21.7 (26.6)
Chinese	..	..	49.5 (63.7)	..	31.9 (21.5)	..	35.9 (45.4)
Indians	..	..	50.4 (59.8)	..	19 (19.7)	..	37.6 (45.5)
Other Communities	..	..	56.7 (69.6)	..	35.7 (38.9)	..	46.8 (55.4)

(b) Advance in Literacy since 1931.

The following comparative table demonstrates the all-round and marked improvement in general literacy-rates since the 1931 Census was taken. The main figures in this table show percentages of the whole population (i.e., all ages) who are now literate in any language, and the figures in brackets are the corresponding 1931 percentages.

			Males.		Females.		Persons.	
			1947.	1931.	1947.	1931.	1947.	1931.
All Races (excluding Nomadic Aborigines)—								
(All ages)			44.5	(34.7)	15.7	(6.5)	30.9	(23.2)
(15 and over)			57	(40.7)	16.5	(6.7)	38.4	(27.8)
Malays and other Malaysians—								
(All ages)			37.9	(26)	11.8	(4.3)	24.7	(15.3)
(15 and over)			49.2	(30.8)	11.4	(3.7)	30	(17.4)
Chinese—								
(All ages)			49.5	(43.1)	19.3	(9.4)	35.9	(32.1)
(15 and over)			63.7	(48.6)	21.5	(9.7)	45.4	(37.8)
Indians—								
(All ages)			50.4	(34.3)	19	(8.1)	37.6	(25.4)
(15 and over)			59.8	(37.5)	19.7	(7.2)	45.5	(28.7)

It will be seen that the increases in literacy-rates are particularly encouraging in the case of females. The general improvement indicated was only to be expected during a period of relatively small immigration, for the educational facilities offered in Malaya have latterly been much superior to those generally available in China or South India and certainly to those in the rural areas from which the majority of the immigrants came. The advance would surely have been even more clearly marked had it not been for the Japanese occupation, when schools deteriorated and many parents kept their children at home. Education stagnated from 1942 to 1945. The phenomenal enrolments of pupils since the liberation has amply demonstrated the pent-up demand among the people for the facilities so long denied them. Further advances have, of course, been made since the 1947 Census was taken, but no more recent figures for the whole population are available.

(c) Literacy in Malay.

At the time when the 1947 Census was taken, 1 per cent. of the total population (excluding Malays, other Malaysians and Nomadic Aborigines) was literate in Malay, i.e., able to read and write a simple letter in the Malay language, employing either the Arabic (or Jawi) script or alternatively the Romanized script. By race, 0.61 per cent. of Chinese, 1.61 per cent. of Indians, 15.4 per cent. of Europeans, 5.58 per cent. of Eurasians and 6.1 per cent. of other races were literate in Malay.

(d) Literacy in English.

As regards literacy in English (i.e., ability to read and write a simple letter in English) at the time when the 1947 Census was taken, 4.54 per cent. of the total population (excluding Nomadic Aborigines) was literate in English. By race, 2.23 per cent. of Malays, .72 per cent. of other Malaysians, 5.45 per cent. of Chinese and 9.55 per cent. of Indians were literate in English.

CHAPTER VII.

(Section 2.)

HEALTH.

The account of work which is appropriate to State institutions will be contained in the reports of the States and Settlements. This Federal report will deal with the general trends of public health, with developments which are of sufficient interest over the whole Federation, and with the account in greater detail of the work of the Federal institutions which include the Institute for Medical Research, institutions for leprosy and mental disease, a special tuberculosis hospital at Malacca and the quarantine services. It also includes the statistical table of diseases in in-patients and out-patients which is compiled from records submitted by the different States.

Though the climate of Malaya is equatorial, the incidence of diseases commonly associated with the tropics is relatively low. The large towns are almost entirely free from malaria and the use of mosquito-nets is mainly for protection from nuisance mosquitoes. In some towns nets are hardly necessary. Water supplies, which are controlled by the Public Works Department, are of high quality in all the large towns and in most of the smaller ones. The health officers act in close alliance with the engineers in checking on the purity of the supplies.

Medical Organisation.

Each State and Settlement has a medical headquarters from which the hospital and health services are jointly administered. On the health side there are health officers in each State and working under them are numerous sanitary inspectors attached either to the town boards or directly under their jurisdiction in the rural areas. Each sanitary inspector is responsible for an area with a population varying between 5,000 and 10,000 persons. Hospitals exist in all the large towns and in many of the smaller ones, depending on their proximity to the former. The number of medical officers in these hospitals is dependent on their size. Specialist officers are attached to the large hospitals and their services are available if required anywhere within the States or Settlements. Certain specialists officers are Federal and they may be called upon to visit and advise in any State or Settlement in the Federation.

The office of the Director of Medical Services, was moved in July to Penang. Penang was selected because a large modern and well-equipped hospital with room for expansion exists for use as a base for the rest of the Federation. Facilities for a training school for newly-qualified doctors, and for nurses and hospital assistants are available. The difficulties inevitably associated with the use of a hospital operating within a State are avoided in Penang, and there is room for extension there.

Vital Statistics.

The vital statistics for the year show that 1949 has been even healthier than was 1948.

The number of births recorded for the year was 222,782 giving an average of 18,565 a month against 16,809 per month in 1948. On an estimated mid-year population of 5,081,848 the 1949 figure gives a birth rate of 43.8 per thousand (40.7 in 1948).

The number of deaths recorded for the year under review was 72,412 giving a monthly average of 6,034 against 6,764 in 1948. These figures reveal a death rate of 14.2 per thousand of the media population against 16.4 in 1948.

The natural increase (births minus deaths) therefore amounted to no less than 150,370, which is very nearly 3 per cent. of the estimated media population.

Infant deaths under one year of age during the year under review numbered 17,953, giving an average of 1,496, per month. The corresponding average number per month during 1948 was 1,506.

By main race groups the distribution of infant deaths during the year was as follows, the corresponding figures for 1948 being shown in brackets :

		Infant deaths.		Births.		Monthly average infant deaths.
Malaysians	..	10,094	..	108,578	..	841 (843)
Chinese	..	5,451	..	85,134	..	454 (474)
Indians	..	2,283	..	26,946	..	190 (178)

There has, therefore, been a slight reduction in the number of infant deaths among Malays and Chinese.

On the figure of 222,782 births and 17,953 infant deaths, the infantile death rate works out at 80.6 per thousand live births (89 in 1948).

Maternal Mortality.

The total maternal deaths were 1,192 for 223,013 births, compared with 1,176 for 201,712 births in 1948. The maternal mortality for all races was 5.34 per 1,000 live births.

Special Diseases.

No cases of plague and cholera were reported in 1949.

Forty-six cases of smallpox with four deaths were reported during the year.

The incidence of malaria has reached even lower levels than in 1948. The number of cases treated in Government hospitals was 18,400 with 462 deaths compared with 19,519 with 596 deaths in 1948.

Sixty-two thousand five hundred and fifty-one cases of Yaws were treated during the year as compared with 104,702 in 1948.

Dysentery and diarrhoea are not notifiable. Hospital statistics show admissions as 6,327 with 651 deaths. There is nothing to indicate that these diseases were more prevalent than normally.

Hospital statistics on pulmonary tuberculosis give 6,908 admissions with 1,976 deaths. Tuberculosis still attracts public attention. The number of cases and deaths in Government hospitals during the year was slightly less than in the previous year.

The total number of beds available for tuberculosis is now over 2,600. Most of them are occupied by advanced chronic cases, but the number of early cases coming for active treatment is increasing. Good facilities for modern active treatment are provided in Penang, Malacca and Johore Bahru and, to a less specialised degree, in all the larger hospitals.

Much of the X-ray equipment lost during the war years has now been replaced. Investigations into the tuberculin reactions in school children were continued, and screening of positive reactors was introduced. It has not yet been possible to introduce B.C.G. vaccination but this is now under investigation. During the year at the invitation of the Government of the Federation, Dr. A. J. Morland, M.D., F.R.C.P. (Lond.) visited Malaya to report on tuberculosis.

Health on Estates.

Progress continue to be made in health measures for estate labourers. The general health of labourers has improved, the main feature particularly being the low incidence of malaria. The estate hospital position is not satisfactory. There is a tendency to close such hospitals. The effect of this is to throw an additional strain on the already much overworked and understaffed government hospitals. The rationalisation of the hospitals' position, both government and estate, is overdue and will have to be considered as part of a larger plan for the improvement of rural health generally.

Health on Mines.

Mines have no hospitals and labourers are sent to government hospitals. The provision of adequate hospital accommodation for labourers on mines will also have to be considered in connection with a rational plan for a rural hospital service.

Railway Sanitation.

The health and medical work on the Malayan Railway is under the charge of a Medical Officer seconded from the Government Medical Service. The main activities of this officer and his staff are medical treatment of Railway staff and their dependants, general public health measures in Railway areas, and anti-malarial

work on Railway property. The anti-malarial measures taken are oiling, D.D.T. barrier spraying and prophylaxis.

Railway dispensaries functioned during the year with three dispensaries at major construction centres. First Aid instruction based on the St. John's Ambulance hand-book were given during the year to the staff. First Aid boxes and stretchers are available on all the passenger trains, workshops and at all stations.

Port Health Work.

During the period from 1st January, 1949, to 31st December, 1949, one hundred and sixteen immigrant ships from India, sixty-three from China, four pilgrim ships from Jeddah and one hundred and sixty-two from other infected ports arrived, carrying a total of 48,280 saloon and deck passengers.

Out-Going Ships.

Four pilgrim ships carrying a total of 3,042 pilgrims left the port during the period.

The pilgrims ranged from infants in arms to very aged adults. None of them were rejected on the grounds of being afflicted with any contagious or infectious disease.

Incoming Pilgrim Ships.

Four pilgrim ships carrying a total of 4,011 pilgrims arrived during the period. A total of 27 deaths occurred on these ships, the deaths being chiefly due to senile debility.

Quarantine Station.

The Quarantine Station, Pulau Jerejak, ceased to function after the end of July, 1948. The Station is now being used as a detention camp under the supervision of the Prisons Department.

Vaccination and Inoculations performed at the Port Health Office.

During the period 14,378 vaccinations and 13,200 inoculations were performed. Out of the total number of vaccinations performed, 287 were primary vaccinations and 14,091 were re-vaccinations for purposes of International Certificates (Med. 41).

Forged Vaccination and Inoculation Certificates.

This has ceased now after the various prosecutions and convictions of the passengers found in possession of these certificates.

Inspection of Aircraft.

During the period 59 planes were inspected at the Bayan Lepas aerodrome. Altogether a total of 288 crew and 502 passengers were examined but no cases of infectious diseases were detected among them.

Maternity and Child Welfare.

This is a State service, particulars of which will be found in the reports of individual States and Settlements. Maternity Hospitals exist at Penang and Johore Bahru. In Kuala Lumpur the Chinese Maternity Hospital is still used by Government. Elsewhere there are maternity wards in all Government Hospitals.

The total number of women admitted to maternity wards in 1949 was 36,277. The total number of deaths was 276. This compares with 32,615 admissions with 273 deaths in 1948.

Child Welfare Centres.

This is also a State service. There are Infant Welfare Centres in all the main towns. Periodic visits are paid by the staff to the surrounding districts.

Hospitals and Dispensaries.

Hospitals and dispensaries are a State service, particulars of this service will be found in the Annual Reports of States and Settlements. The total number of beds available for patients was 13,044. The daily average number of in-patients was 10,853.

During the year 207,959 patients were treated. This does not include the inmates of the leper and mental institution—1,052 and 2,132 respectively.

Malaria.

The number of malaria cases treated in Government Hospitals was 18,400, a reduction of 1,119 cases from 1948. The distribution of types of malaria, diagnosed microscopically, was :

Subtertian .. 65 per cent. Mixed 4 per cent.

Benign tertian .. 30 ,, Quartan 1 ,,

The following gives an indication of the commoner conditions treated :

Diseases.	Admissions.	Deaths.	Mortality. %
Malaria	18,400 ..	462 ..	2.51
Pulmonary Tuberculosis	6,908 ..	1,976 ..	28.6
Dysentery	2,027 ..	84 ..	4.14
Diarrhoea and Enteritis	4,300 ..	567 ..	13.19
Pneumonia and Broncho-Pneumonia	3,730 ..	867 ..	23.24
Bronchitis	6,695 ..	92 ..	1.37
Beri-Beri	481 ..	53 ..	11.02
Venereal Diseases	5,123 ..	78 ..	1.52
Enteric Fever	823 ..	128 ..	15.56
Injuries due to External Causes ..	18,826 ..	581 ..	3.09

Radiological Work.

The equipment of the radiology department improved during the year but is still very defective. No facilities exist for deep X-ray therapy; radiological diagnosis is fairly satisfactory where equipment exists, but many of the fairly large hospitals have no X-ray equipment.

Out-patients.

All hospitals have out-patient departments. This is supplemented by small dispensaries situated in many of the smaller towns and by travelling motor dispensaries operating on the main roads. Hospital Assistants in charge of fixed dispensaries travel by bicycle throughout their area to deal with places which the travelling dispensary cannot reach. In Johore, Pahang, Trengganu and Kelantan, a certain amount of travelling is also done by river. The absence of suitable craft has prevented the resumption of the pre-war service to river kampongs.

The demand for the services of these dispensaries has increased greatly since the war.

One million nine hundred and seventy-seven thousand five hundred and fifty-eight attendances were recorded in 1949. This figure does not include attendances at Infant Welfare Centres and Venereal Disease clinics. Six hundred and twenty-five thousand eight hundred and sixty-two of these attendances were at Travelling Dispensaries.

New Development—Dental.

A training school for Dental Public Health Nurses has been started in Penang. This is a new development which is probably unique in the territories under the administration of the Colonial Office. Only in New Zealand has this system been used until now.

It was realised that the amount of work required for the dental care of children could never be accomplished in the reasonably near future unless the dental surgeons had trained assistants to do the simpler part of the work. There are approximately 600,000 school children in the Federation of Malaya and it was considered improbable that the country could ever afford or recruit the dental surgeons necessary to care for this number of children.

The objective now is to have five trained dental public health nurses to work with each dental surgeon. With this in mind five nurses already trained in general nursing were selected from Kedah, Penang, Selangor, Malacca and Perak. Three of these were Chinese, one Malay and one Sinhalese. Penang was chosen as the site of the school as there were good clinical facilities and room for further expansion. There are also many schools on the island within easy reach of the Dental Clinic thus ensuring a readily available reservoir of patients.

It was fortunate that an experienced dental nurse from New Zealand was available when training was commenced in June, 1949. The trainees have shown remarkable aptitude for the work and the children treated have evinced much less fear of dental treatment at the hands of these nurses than they do when treated by male dental officers. Though only six months have elapsed since the training commenced, the Chief Dental Officer is convinced that the experiment is already a success. Eight more nurses will begin the course in January, and it is intended when the course is fully established to admit twenty nurses for training each year.

The total number of dental officers employed in the Federation of Malaya at the end of the year was 27. This figure shows an increase of three on 1948 but is seven below the establishment of 34.

The number of attendances has risen from 111,165 in 1948 to 117,088 in 1949.

Venereal Diseases.

Treatment centres are available at all hospitals and out-patient clinics. A number of special clinics function in the larger centres of population. The following gives the number of cases treated :

Nationalities.	Syphilis.	Gonorrhoea.	Soft Sores.
Chinese	3,971 ..	2,151 ..	956
Indians	3,395 ..	1,472 ..	1,051
Malays	3,832 ..	2,525 ..	575
Others	158 ..	227 ..	29
Total ..	11,356 ..	6,375 ..	2,611
1948 Figures ..	12,386 ..	8,146 ..	2,536

SPECIAL INSTITUTIONS.

Institute for Medical Research.

The Institute to-day is a branch of the Malayan Medical Services, with a central group of laboratories in Kuala Lumpur, organised as divisions of bacteriology, biochemistry, entomology, malaria, nutrition, pathology and serology, and a lymph station for the production of smallpox vaccine. There are branch laboratories in the States of Perak and Negri Sembilan. Restricted in the early years to medical research alone, the Institute has now an added responsibility to the Medical Service for the manufacture of vaccines and the laboratory diagnosis of disease. Rather more than one-half of the resources of the Institute are absorbed by research activities, but research is not restricted to the Malayan staff, for laboratory hospitality is given to colonial and foreign research workers, and some of the most useful work of the past few years has come from collaborative research teams from America and the United Kingdom. During the past two years the Institute has welcomed, among others, two groups of eminent research workers from the United States Army, Sir Howard Florey, the co-discoverer with Sir Alexander Fleming of penicillin; Dr. J. L. O'Connor, a virus expert from the Commonwealth Serum Laboratories of Australia; Dr. Farinaud of the Pasteur Institute, Saigon; and Dr. J. R. Busvine from the London School of Hygiene and Tropical Medicine; while a typhus team from the United Kingdom financed by the Colonial Welfare and Development Fund has been attached to the Institute for a three-year programme of work since August, 1947.

The New Antibiotics—The antibiotic chloromycetin* is obtained from a mould originally isolated from Venezuelan soil. It is a crystalline substance first prepared as a natural extract in the

* Now given in America the official name "chloramphenicol".

research laboratories of Parke, Davis & Co., in 1947 and produced synthetically in 1948. The interest aroused by the activity of chloromycetin against the rickettsial organisms of typhus fever led to clinical trials by American workers, who, co-operating last year with the Institute staff in Kuala Lumpur, demonstrated the dramatic success with which scrub typhus could be cured. Further work has shown that the activity of chloromycetin is not restricted to scrub typhus, for the drug has a wide range of action on many bacteria. The most recent studies have tried to define this range.

Chloromycetin in Bacterial and Other Diseases—Work during the year in the Division of Bacteriology has shown that chloromycetin inhibits the growth of some of the common disease-producing bacteria in Malaya. Bacteria of at least 15 genera are so effected and the drug has not only a proved clinical value in typhoid fever, but at least a potential value on bacillary dysentery, cholera, diphtheria, pneumonia melioidosis, meningitis, pyelitis, endocarditis, gonorrhoea, plague and other diseases. The laboratory results are promising but clinical confirmation is still necessary in most diseases.

The value of chloromycetin in typhoid fever, already indicated by the work in Malaya of the U.S. Army Research Team, has been generally confirmed by reports reaching the Institute from the Medical Services. But the drug is no panacea, for deaths may still occur when treatment begins late. The drug inhibits the growth of typhoid bacilli in the bowel but does not prevent intestinal haemorrhage or perforation of the bowel. There is a tendency, moreover, to relapse of infection when treatment stops, particularly in children.

Diphtheria carriers have been shown to become “negative” after reported local application of saturated chloromycetin solution to the fauces and tonsils. Instilled into the conjunctival sac, the drug is stable and non-irritating and has been found useful in the common Parinand’s conjunctivitis, and for rendering the conjunctival sac free from bacteria before operation for cataract. Three cases of kerato-conjunctivitis, treated by the Senior Pathologist in conjunction with the Consulting Ophthalmologist, showed a dramatic improvement within 24 hours after the installation into the conjunctival sac of chloromycetin in distilled water. The normal duration of the infection is 3 to 5 weeks. Cases of sub-acute bacterial endocarditis were improved by the bacteriostatic action of the drug. Three cases—two due to *Streptococcus faecalis*—were relieved when treated with chloromycetin but relapsed when the drug was withdrawn. Large doses failed to reduce the numbers of viable bacilli excreted from a case of tuberculosis of the kidney. Tested in the Division of Pathology in experimental vaccinal infection in the rabbit chloromycetin—was inactive; nor was there any demonstrable effect in a chloromycetin-treated case of myeloid leukaemia. The drug seemed also to be inert in *falciparum* and *vivax* malaria.

Antibiotic substances from Malayan Streptomyces—The search in Malayan soils for moulds of the genus *Streptomyces* which might have wide-range antibiotic activity has continued. This search has for its object not only the exploration of antibiotics produced by Malayan fungi but also the possible discovery of antibiotic substances

acting on the smaller particle viruses of rabies and smallpox, against which chloromycetin is inert. Malayan strains of antibiotic-producing *Streptomyces* have been referred for further investigation to Dr. John Ehrlich—one of the discoverers of chloromycetin—and to the Commonwealth Serum Laboratories of Australia.

Typhus—Research on typhus, for many years almost restricted to the Division of Pathology, has widened in range with the merging of the typhus work of this division with that of the British and American Typhus teams.

The British Scrub Typhus Unit.

The Colonial Medical Research Committee, a joint committee of the Colonial Office and the Medical Research Council, has generously assisted the recent typhus research work of the Institute by a financial grant which assures the continuity in Malaya of studies made during the war in Burma by entomologists of the Allied Armies.

The British Typhus Unit is making a long-term study of the mites which carry scrub typhus and the animal hosts on which they normally feed. The principal object is to discover the factors concerned in the spread and establishment of the infection in waste land, but wider issues, such as the establishment of rodent pests, are being followed.

About one-quarter of the original Malayan forest has been destroyed, giving way to plantations, waste land, and occupied land. Most of the original forest animals and mites have disappeared, but a few, joined by some species introduced from outside Malaya, have multiplied in the new conditions. Among these are the scrub typhus mite and its chief hosts. In Malaya, scrub typhus is associated primarily with a field rat common in waste land and clearings, but other small mammals and also birds such as quail enter into a secondary but important partnership. There is evidence that the disease may become more wide-spread, until almost every patch of waste land must be suspect. It is clear, also, that relatively small climatic changes influence the risk of infection. It is among the purposes of this team to study such possibilities.

Over 9,000 animals have so far been examined in Malaya, and collections are being received from India, Hong Kong, and Sarawak. The effects of deforestation are reflected by the finding of some 40 species of rodents and insectivores in the forests, but only eight species in the rural areas and six species in Kuala Lumpur town, some of the last having been introduced. A preliminary survey of the animals, an account of the economically important rats of Malaya, and studies of the bionomics of important rats, are in the press. A topographical survey of scrub typhus is being undertaken, and a preliminary general account has recently been published. The technique of breeding mites is now efficient, and precise experiments on infection are being carried out.

The training of staff and the mere taxonomic study of the 75 odd species of vertebrate hosts and the 80-100 species of parasites, including many new and ill-studied members and groups, has taken up much time and effort. The field is now sufficiently clear for

several promising investigations to be planned on fresh lines, and the research programme is consequently entering its most efficient phase.

The U.S. Army Medical Research Team.

A medical research team from the United States Army arrived in Malaya in March, 1948. Led by Dr. Joseph E. Smadel, Director of the Department of Virus and Rickettsial Diseases, Army Medical School, Washington, and working in collaboration with the staff of the Institute in Kuala Lumpur, this team demonstrated last year the dramatic cure of scrub typhus with the new antibiotic, chloromycetin. "Overnight, as it were", stated Dr. Lewthwaite in last year's report, "a once severe and often mortal disease, centuries old much feared by planters and serving soldiers alike, had become trivial in the presence of chloromycetin, a drug taken as simply as is aspirin".

A second team from the U.S. Army, led by Dr. Charles A. Bailey and attached to the Institute between November, 1948, and April, 1949, extended the work on chloromycetin to a wider field, a welcome liaison with American workers which is to be continued by a third team due to visit Kuala Lumpur early in 1950. The following, in brief, are some of the more important findings :

Chloromycetin in the Treatment of Scrub Typhus.

A total dosage of 6.0 grammes of chloromycetin over 24 hours reduced scrub typhus from a severe illness with an appreciable mortality to a short benign febrile episode. Cases treated very early on the illness tended to relapse, but relapses responded to the drug equally well.

Chloromycetin in the Prophylaxis of Scrub Typhus.

Three field trials in which 135 local volunteers took part were made in highly-infected territory near Kuala Lumpur. The results showed :

- (a) that a daily dose of 1.0 gramme for three weeks from the first day of exposure delayed the onset of scrub typhus until about ten days after the last dose;
- (b) that a weekly dose of 4.0 grammes given for six weeks suppressed infection long enough for the subjects to develop immunity.

Chloromycetin in Typhoid Fever.

Thirty-five cases of typhoid were treated by the team while in Malaya and fifteen more on their return to the States. Improvement in the clinical conditions began within 48 hours, and as a rule the fever fell within three or four days. Relapses occurred, particularly when the duration of treatment fell short of the 14 days finally recommended. The drug did not prevent complications, for intestinal hæmorrhage occurred in six of the 50 patients and probable perforation of the bowel in three others. Hæmorrhage and perforation of the intestine led to the death on the 18th day of a boy of ten years who had received 5.0 grammes.

Synthetic Chloromycetin.

The synthesis of chloromycetin was accomplished in the research laboratory of Parke, Davis and Company early in 1948. The first two patients treated with the synthetic compound, two Gurkhas who contracted scrub typhus on active services with the security forces, were quickly cured. Further work has continued to show that the two forms of chloromycetin, natural and synthetic, are equally efficacious.

Malaria.

The Colonial Welfare and Development Fund continues to finance much of the work of the Divisions of Entomology and Malaria. Research during the year on the British drug paludrine broadly confirms the great value of the drug for malaria prophylaxis but emphasises its limitations in treatment. Malaria control based on the spraying of kampong houses with D.D.T or Gammexane began early in the year. A three-year programme of experimental control is planned from which, it is hoped, may come the scientific basis for future control policy in kampongs.

The New Insecticides.

Field experiments at the Tampin branch of the Institute have shown that both D.D.T. and Gammexane are highly lethal to adult *Anopheles maculatus*. Both insecticides are now being used in an experimental attempt to control malaria due to *A. maculatus* in two valleys in Negri Sembilan, populated by Malay padi planters. The houses are being sprayed once in three months with D.D.T. in one valley and with Gammexane in the second. The work proceeds smoothly and both valleys have now had two sprayings. The effect of the insecticides on the malaria is being compared with that of the drug paludrine which is distributed for personal prophylaxis in a third valley. This work is aided by a grant from the Colonial Welfare and Development Fund.

Experiments continue in Kuala Lumpur on the use of D.D.T. as a larvicide. Using a method for testing residual insecticides against adult mosquitoes, the order of toxicity with fresh films of insecticide was—Gammexane, Chlordan, D.D.T.; while the order of residual activity was D.D.T., Gammexane, Chlordan. Fresh films of these insecticides have a fumigant effect, most marked with Gammexane and least with D.D.T. Gammexane also has a repellent effect.

Anopheles vectors of malaria—An account of the systematics and biology of the *umbrosus* group of *Anopheles* has been completed. Descriptions of two new species are included and the specific name *letifer*, proposed by Gater, has been adopted.

Paludrine—This valuable British drug continues to give excellent results in malaria control and is much used by the Security Forces and estates. Field experiments during the year on a malarious estate have shown no falling off in the prophylactic activity of the drug, though early in the year there were disquieting reports on the ease with which the malaria parasites of birds and monkeys could be made resistant under the artificial conditions of laboratory experiments. This resistance has appeared in Malaya though not

yet on a scale to cause alarm. Recent observations in Tampin have shown that paludrine-resistant strains of *P. falciparum*, the parasite of malignant malaria, are beginning to emerge. The conditions which have produced this resistance are under investigation.

Squirrel malaria—An interesting malaria parasite occurs in several species of Malayan squirrel. The parasite is probably the same as that seen in 1905 by Vassal in Indo-China, and named by Laveran, *P. vassali*. A probable stage in the life history has been found in the cells of the liver. The biological significance of this liver development of the parasite is not yet clear. The liver stage closely resembles that of *Hepatocystis kochi* found by Garnham in the liver of lower African monkeys. The parasite has been provisionally named *Hepatocystis vassali* var. *Malayensis*.

Nutrition—The Division of Nutrition, created after the war, has continued investigations into the state of health, the diet and the economic conditions of racial and occupational groups at the lower income levels. The Malay small-holder and fisherman in the selected groups live at a lower level than the estate labourer. The fisherman is somewhat worse off, on the whole, than the small-holder. His income from day to day is uncertain and he is seldom in a position or has foresight enough to put something away to feed himself when his income falls. The smallholder on the other hand has a more steady income and can better organise his day to day living. The income and diet, both of smallholder and fisherman compare unfavourably with those of the estate labourer, even in times of plenty. In one investigation it was found that the labourer and his family spent on the average as much money on food as the mean total household income in a group of fishermen.

The diet of the Malay in the groups investigated tended to be deficient both in quality and quantity. The people were often thin, hungry and lacking in initiative. They were inclined to work less than the estate labourer, a tendency which may partly account for the lower income; but more important was the lack of a business sense, the irresponsibility with which they became indebted, the unsatisfactory terms they were prepared to accept—factors which might reduce the potential income by a half or more. The problem is not a simple one. The medical side of it—the diet and the standard of health—is important but equally important are the economic and sociological aspects.

A large experimental feeding scheme has started in Malacca. Selected groups, each of more than 1,000 children are receiving vitamin-reinforced rice. The benefits to health of this supplementary feeding will be assessed in due course; other feeding schemes for children are proceeding smoothly and have apparently improved the health.

Filariasis—Filariasis is a worm infection common in the lower reaches of some of the Malayan rivers, and in certain low-lying coastal areas in Kedah, Province Wellesley and Penang. The disease causes bursts of fever in its early stages and is later often symptomless, but sometimes leads to the disfiguring swelling of the legs known as elephantiasis. Until recently no cure was known. The new drug Hetrazan may change the outlook. Clinical trials

made in endemic areas of the disease in Kedah have confirmed the remarkable action of Hetrazan in clearing the blood of microfilarias, though administration causes a sharp febrile reaction which is likely to discourage mass administration.

The mosquitoes which carry filariasis to man in the coastal areas seem to breed in association with water hyacinth, and the Province Wellesley Medical Department is attempting control by the removal of this plant. Dissections of mosquitoes from the control areas, made in the Division of Entomology, seem to show that this measure is proving effective.

Miscellanea—Observations of some interest have been made during the year on the disease of hair known as “*piedra*”, on leucoderma, a patchy de-pigmentation of the skin occurring mainly among Indians, and on the anthropological relations of the Sakai.

Piedra (trichosporosis) in Malaya—This disease of hair has been known in South East Asia for some thirty years. The causative fungus has usually been regarded as a *Trichosporon* but the organism isolated from a recent case observed in the Division of Bacteriology produced ascospores under conditions which occur naturally, or may be produced by mucilaginous hair fixatives, and was thus considered to belong to the genus *Piedraia*. The local species differs in spore size from the American species *Piedraia hortai* and has been given the provisional name *Piedraia malavi*.

Leucoderma (vitiligo)—a deficiency disease—Leucoderma is a patchy, unsightly white disfiguration of the skin occurring mainly among Indians. Observations made in the Division of Bacteriology during the year suggest that the disease may be due to a dietary deficiency. Additions to the diet of “Hepovite” and milk with the object of supplying high-class protein and the theoretically-missing amino acids seemed to produce a complete re-pigmentation in one case and partial but progressive re-pigmentation in two others. Bouchi oil from the small fruits of *Psoralea corylifolia* was applied locally as a rubefacient; the oil is regarded as a useful though not essential adjunct to treatment.

Anthropological blood-grouping of Sakai—From the Division Bacteriology also comes an interesting observation on the anthropological relationship of the Semai from Cameron Highlands with other primitive peoples of South East Asia. By plotting the gene frequencies of the blood group factors “A” and “B” the Semai are shown to occupy a unique position on Snyder’s chart which plots the blood group frequencies. Adjacent to the Semai on this chart are the Tho (Indo-China), Tobas (Sumatra), Paiwan (Formosa), Muongs (Indo-China), and the Sulu (Philippines).

Routine—The institute maintains a diagnostic service for the Federation, and manufactures some of the more important biological products. Prophylactic vaccines prepared by, and issued from, the Institute included 1,305,000 doses of vaccine lymph, 37,500 cc of cholera vaccine, 44,250 cc of typhoid vaccine, 48,200 cc of rabies vaccine for human prophylaxis and 4,630 cc for canine prophylaxis. Supplies of these biological products, though primarily for the Federation of Malaya, are sent to Sarawak and Borneo and occasionally further afield.

The Division of Biochemistry, co-operating with the Sungei Buloh Leper Settlement, has undertaken the chemical estimations of sulphone drugs in the tissues and body fluids. The new drugs of the sulphone group are being studied at the settlement with results which seem to hold great promise. Plasma estimation of the anti-malaria drug paludrine have brought to light technical difficulties which are being investigated.

Towards the end of the year the scope of the Division of Pathology was extended to include a diagnostic section for some of the virus diseases of Malaya, the possible nucleus of a later Division of Virus Diseases. The resources of the virus section are still small but the Institute is now in a position to undertake routine laboratory diagnosis of small-pox, virus pneumonias and virus encephalitis.

Yellow Fever—Swifter air transport demands that precautions should be taken against the entry of yellow fever into Malaya. A large stock of the specific vaccine, prepared in South Africa, is held ready for immediate use. The control of yellow fever vaccine, exercised by the World Health Organisation, involves specialised biological tests in laboratory animals: the Institute is recognised by this Organisation as a laboratory authorised to make these tests, and also to administer the vaccine to those travelling to yellow fever areas. Penang also is now an authorised centre for yellow fever inoculation.

Rabies—Canine rabies is still prevalent in the Northern States, but no infections are recorded south of Perak. Brain from 275 suspected animals, nearly all dogs, were examined during the year: 120 were rabid. Just before the war rabies had almost disappeared excepting in the States bordering Siam. One reason advanced for the prevalence of rabies to-day is that owners do not muzzle their dogs at night on account of bandit activity.

The potency of rabies vaccine prepared in the Institute for human prophylaxis is now tested on mice before issue, a new departure which, so far as we are aware, is standard practice only in the United States.

Leper Settlements.

There are three leper settlements in the Federation, Sungei Buloh in Selangor, Pulau Jerejak in Penang and the Leper Hospital, Johore Bahru. Sungei Buloh Settlement is situated in a valley some 16 miles from Kuala Lumpur in attractive surroundings. Part of the settlement is laid out as a hospital with wards for the treatment of the acute cases, and the rest is laid out as a village settlement consisting of small semi-detached houses consisting of a room, kitchen and verandah with bathing facilities attached. Married couples who have been admitted to the settlement are allowed to live together and a certain number of marriages take place each year among the settlement inmates and these married couples are permitted to live together. About forty infants are born each year in the Settlement and these are removed as soon as possible to a creché in the "clean" area where they are looked after till they are either adopted or otherwise taken care of by welfare associations.

Leper Settlement, Sungei Buloh.

During the year the number of patients in the settlement increased from 1,888 to 2,130.

	Men.	Women.	Boys.	Girls.	Total.
Chinese ..	1,022	483	82	67	1,654
Indians ..	210	28	8	3	249
Malays ..	157	44	12	2	215
Others ..	9	2	—	1	12
Total ..	1,398	557	102	73	2,130

The treatment of leprosy with diamino-diphenyl-sulphone and sulphetrone continued. The former drug appears to be the more effective. In Chinese patients sulphetrone was not well tolerated orally, and experiments in the use of oily suspensions and aqueous dilutions parenterally were tried. One hundred lepromatous cases have completed 12 months treatment with diamino-diphenyl-sulphone and the results have shown 96 improved and 4 remaining stationary. The patients keenly appreciate this form of treatment, and the morale of the Settlements is high.

Mental Hospital.

The Central Mental Hospital at Tanjong Rambutan deals with all cases of mental disease from the Federation of Malaya with the exception of 1st class male cases for whom there is no suitable accommodation. One ward was converted into three rooms for the accommodation of 1st class female patients. The Mental Hospital, Johore Bahru, is leased to the army.

Deep Insulin and Electric Convulsive Therapy continued to be used, with many dramatic recoveries. Of the former 137 cases were treated and of the latter 803, compared with 106 and 599 in 1948.

Pharmaceutical Laboratory.

Further equipment arrived during the year and this enabled output to be stepped up. The equipment received included a Gas plant, Refractometer, Fluorescent Lamp, Rotary Laboratory Pump, Ampoule printing and labelling machine, Polarimeter, Colorimeter, Electric Ampoule Fillers, Hot air oven and Autoclaves.

Over 110,000 ampoules were made compared with 61,000 in 1948 and 65,500 lbs. of galenicals and other preparations as compared with 52,100 lbs. in 1948. The output figures for 1949 include over 491,000 injectable doses.

CHEMISTRY.

The Federation of Malaya Chemistry Department is a post-war creation. It is a hybrid formed from the original Straits Settlements laboratories in Penang and new laboratories in Kuala Lumpur amalgamating, into a working unit, the functions of the pre-war Customs laboratory, and the non-medical side of the pre-war I.M.R. Chemical Division.

At the old established centre in Penang, continued and gradually increasing use of the laboratories has been made. In the Kuala Lumpur centre the 1949 activities, compared with 1948, have increased by 40 per cent. and no doubt would have been even more if anything in the nature of normal conditions had existed in the country.

The Department works in close co-operation with many Government departments particularly Customs and Excise, Police and Medical. For the Customs and Excise Department routine spirit strengths and classification of dutiable liquors, category classification, provision of documentary evidence for offences under the Opium and Chandu Proclamation, the Liquors and Excise Enactments and other Enactments, and chemical control of toddy quality are all part of the duties of this department.

Both chemical and bacteriological examination of water supplies, fresh milk and foodstuffs, drugs and medicines are carried out for the Medical Department, Municipalities and Town Boards throughout the country.

The use of scientific methods in assisting the Malayan Police in the detection of crime include the examination of

- (a) blood stains for origin and grouping ;
- (b) bullets and firearms for identification and to ascertain if a particular weapon was responsible for firing a given bullet ;
- (c) handwriting, typewriting and other documentary exhibits for forgery, fraud, and seditious or threatening letters ;
- (d) toxicological and poison specimens.

The Department continues to give analytical services to the public and these cover a wide range from oils, fats, ores, seawater damage, latex, and insurance claims. Many steam plants have taken advantage of advice and analyses in connection with fuels and boiler waters.

CHAPTER VII.

(Section 3.)

HOUSING CONDITIONS AND PROGRAMMES.

Housing in the Federation of Malaya may be classified under three separate heads :

Firstly, housing of Government servants and estate and mine workers where a positive standard is enforced by administrative direction in the first instance and by legislation in the second.

Secondly, housing in rural communities, where the type of dwelling, varying according to the race of the inhabitant and evolved through the centuries, develops only by slow degrees in answer to the country man's gradually increasing demand for an improved domestic culture and to his appreciation of new amenities.

Thirdly, private houses in urban areas, where control is exercised to ensure that accommodation does not fall below a legal minimum.

As regards the first category houses are built to type plans which are under constant examination. It is the policy of the Government wherever possible to construct permanent quarters, although this rule has been relaxed during the present housing shortage. Electric light and piped water supply are available in most areas. The great majority of existing Government quarters have now been reconditioned up to pre-war standards.

In order to alleviate the acute shortage of accommodation for all grades of the Government Service, a sum of \$4,000,000 has been provided under the Loan Ordinance No. 16 of 1949 for expenditure on the construction of Government quarters in the Federation and this has been allocated as follows :

Selangor	\$1,185,000
Penang	605,000
Perak	495,000
Johore	425,000
Malacca	350,000
Trengganu	250,000
Negri Sembilan	165,000
Kedah	150,000
Perlis	125,000
Pahang	125,000
Kelantan	125,000
Total ..	<u>4,000,000</u>

The detailed building programmes of individual States and Settlements have not yet been completed, but it is proposed that the amount should be utilised for the construction of senior officers quarters, subordinates quarters and minor subordinates quarters in accordance with the existing deficiencies of accommodation for these three categories in so far as there is an obligation that it should be provided by the Government.

The Labour Department, which approves labourers' quarters on mines and estates, had pre-war set its face against barrack type dwellings in favour of detached or semi-detached cottages of types designed to ensure maximum light and ventilation on sites approved by the Health Department. Steady progress has been made to restore pre-occupation standards, but new building has been hindered by the prior need for rehabilitation.

Efforts to improve the standard of accommodation for labourers employed in the planting industry are discernible. In one State the number of estates with one or more of the older back-to-back type of labourers lines must be somewhere about 80 per cent., but interest has been shown in the conversion of accommodation of this kind. In one case an interesting experiment has been made in the conversion of a raised back-to-back line of rooms which was about 30 years old. The building has been dismantled and re-assembled on another site in units of 5 or 6 rooms at one foot above ground level. The accommodation is better than that provided by many newly built lines, and it is most notable that the old timber

is still sound. The under part of the lines is bricked-in, and each unit comprises two rooms of 10' \times 10' a verandah 6' \times 10' and a kitchen at the back of 8' \times 6' with a cement floor, all under the original barrack roof. This conversion has cost about \$500 a unit. The only unfortunate feature is that contractors are quoting exorbitant prices for such work.

As regards the second category, that is to say rural housing, the Malay peasant appears to have evolved the most practical and hygienic type of domestic dwelling in the East, having regard to the climate and his financial resources. Little improvement is called for in Malay houses although the condition of compounds and the construction and siting of wells and bathing places still leaves something to be desired, but this is within the scope of the Health Department.

The Chinese rural dwelling, on the other hand, is generally speaking as bad as can be from the point of view of light, ventilation and drainage. Obstacles of prejudice, poverty and conservatism have long hindered the improvement of living conditions in these cases.

As regards the third category the inadequacy of private houses in urban areas both in structure and quantity is one of the most pressing problems with which the Government is faced. The hard core of the problem lies in the existence of houses which are inadequate both with regard to accommodation and conveniences and as well as of houses which are suitable in themselves but have become a danger to public health due to overcrowding. Both aspects of the problem existed and were accumulating before the war and both have been considerably aggravated by the Japanese occupation when squatter type dwellings, which can only be classified as hovels, were built in great numbers by the influx of persons who migrated from the country areas to the relative safety of the larger towns. In this period there was also an almost complete cessation of building activities, and no control by town and municipal authorities of overcrowding.

To deal with the urban problem of shortage of houses the creation of a Building Trust with capital funds provided by the Government and with power to raise money on the property of the Trust has been under consideration since 1947. It is intended that these funds should be used for building and letting and for the purchase of land for housing estates where State land is not available. Owing to various difficulties the Trust has not yet been set up but \$3,000,000 or about 3 per cent. of the amount required to provide urgently needed private dwellings in town areas has been provided under the Loan Ordinance, 1949, and legislation is under consideration for the purpose of implementing the scheme.

During the period under review activity in the building of permanent houses in town areas was most marked in Kuala Lumpur and in Ipoh, 105 permanent houses including shops and terrace houses being put up in the former and 51 in the latter, where the total of plans approved amounted to 217.

Private enterprise is not at present interested in schemes for cheap houses owing to high building costs which are still estimated to be about three times what they were before the war, on account of higher wage rates and increased cost of materials. This factor has led the Municipality of Kuala Lumpur to begin work on Housing Estates, with the preparation of sites and roads on 200 acres of a former rubber estate under a scheme intended to provide a shopping centre and recreation ground in addition to dwelling houses.

Private housing schemes in progress are the planning of 80 houses for its members by the Kuala Lumpur Co-operative Housing Society, the construction of some 88 houses in the Kepayang Park area at Ipoh, and the completion of 65 terrace dwellings in two large groups in Kuala Lumpur. The Malayan Association for the Prevention of Tuberculosis also plans to start a housing scheme in Kuala Lumpur. A co-operative housing scheme, a scheme for extending the Kampong Bharu Malay Settlement, and one for the construction of 24 houses have been prepared for Taiping, but otherwise there has been little private building enterprise in the Federation outside Kuala Lumpur and Ipoh. Plans have however been approved for a slum clearance scheme at Port Swettenham which would make available house sites for 269 Malay type dwellings, 404 Indian and 548 Chinese.

CHAPTER VII.

(Section 4.)

SOCIAL WELFARE.

During the year 1949 it was possible to organise further decentralisation of the functions of the Department of Social Welfare. Experience gained by Social Welfare officers and the effect of training courses enabled technical branches of social welfare to be instituted.

The Committee appointed by His Excellency the High Commissioner to enquire into the activities of the Department of Social Welfare submitted its recommendations during the year and these are set out in Council Paper No. 41 of 1949. The most significant recommendation was that there should be no curtailment of Social Welfare Services.

The Central Welfare Council, which is the main voluntary service in social welfare supplementary to that of the Department of Social Welfare, published its new constitution. While retaining its advisory functions, it became an independent body representative of all welfare organisations.

The Malayan Anti-Tuberculosis Association, a subsidiary of the Central Welfare Council, became firmly established. A successful experiment was made in establishing welfare centres in schools in Kuala Lumpur by the Women's Service League, an organisation of voluntary workers, working in conjunction with the Department of Social Welfare.

In the field of rural welfare an expansion was made of the rural malnutrition schemes, working centres, Kampong rehabilitation and community centres.

Through the assistance of the State Authorities of Johore, the Princess Elizabeth Home for blind children has become a practical possibility.

The untimely death of the Principal Probation Officer deprived the Federation of the services of an expert with wide experience in the Colonial territories. The rules for Approved Schools, Remand Homes and Juvenile Courts were gazetted.

The Advisory Committee for social welfare is the Central Welfare Council. The Chief Social Welfare Officer is a member of the Central Welfare Council and Social Welfare Officers serve on the welfare committees of their respective States or Settlements.

In 1949, as a result of training schemes, officers for each special branch of social welfare work were attached to the social welfare officers who were appointed to the States and Settlements in the previous year.

Seven locally-recruited officers from the Social Welfare Department proceeded to the United Kingdom for training. There are now thirteen such officers in training. With the assistance of the United Nations Children's Emergency Fund, seven scholarships have been awarded for training in social welfare between 1950-52. Training under this scheme will be in the field of rural and child welfare work.

Training courses in social welfare work continued during the year, and a reference library has been built up to which all social welfare workers have access.

The scheme for malnutrition feeding in special areas where neither medical nor school services are available were expanded during 1949. There were further experiments with play centres and more play grounds were established. The various sub-committees of the Central Welfare Council co-operate in social work for children.

The Malayan Youth Council was formed. This was a result of the joint enterprise of the Department of Social Welfare and the Central Welfare Council. A first meeting of the representatives of all youth organisations was convened in Kuala Lumpur. A Chairman and Secretary were elected and, by resolution, the Charter of the World Assembly of Youth was adopted. The Malayan Youth Council was represented at the Brussels' Conference of the World Assembly of Youth.

A late development in 1949 was the establishment of youth councils in some of the States and one of the Settlements. The Secretary of the Malayan Youth Council became a member of the Central Welfare Council. By resolution of the Central Welfare Council, as a result of the direct representation from the Malayan Youth Council, each State and Settlement Youth Council has representation on the Welfare Committee.

The training of youth leaders in co-operation with the Y.M.C.A. and Y.W.C.A. continues and Government gave Grants-in-Aid to enable training to be developed. Two of the scholars in training overseas are specialising in youth work.

Steps have been taken to meet the non-industrial welfare needs of employed youth, and the services of the community welfare organisations have been enlisted. These organisations provide facilities for recreation and adult education. There was a noticeable increase in the activity of clubs for children and young persons.

Physically and mentally handicapped children and children who are destitute are provided for in Homes maintained by the Government, and in similar homes established by unofficial bodies. In this way and by the development of Case work by Social Welfare Officers the needs of children and young persons requiring care and protection have been met.

There has been an increase in the number of children and young persons placed with foster-parents. This is desirable as the available accommodation in Homes and Orphanages is inadequate to meet the needs of present circumstances. Preparations were made for the introduction of legislation to legalise adoption.

Each Home and Institution, whether maintained by Government or assisted by a Grant-in-Aid, was gazetted as a Place of Safety in October, 1949.

Community Centres have now been established in several rural areas. Each Social Welfare Office is to some extent a Citizens Advice Bureau and a Social Information Centre. Much additional work is undertaken by the Women's Service League which receives a Grant-in-Aid from the Government to maintain and expand its administration.

From the General Welfare Vote of the Department of Social Welfare provision is made for public assistance in the form of out-door relief. In 1950 this will become a State and Settlement responsibility. There was an expansion of the public assistance service to plantations and mines and Government institutions, where there is still a problem presented by the dependents of those who perished on the Burma-Siam railway during the Japanese Occupation.

There are a number of institutions especially in urban areas, which care for destitute, infirm and aged persons.

There has been an expansion of kampong and rural improvement schemes and rural crafts received encouragement and assistance.

The Juvenile Courts Ordinance came into operation on 1st December, 1949, and by the end of the year there were juvenile courts in every State and Settlement. For the first time juvenile welfare committees and advisory panels found their place in the plan for the treatment of juvenile delinquency. Social Welfare officers have been gazetted as Deputy Probation Officers. The Taiping approved school was expanded and a second approved school was opened at Sungei Buloh. At Taiping the training is directed largely towards equipping juvenile delinquents for industrial life. At Sungei Buloh it is proposed that training should be principally in agricultural pursuits.

It has been possible to start probation work among adults and each social welfare office is also concerned with matrimonial and family disputes.

By a resolution of the Central Welfare Council a sub-committee was established to encourage the formation of Discharged Prisoners'

Aid Societies. Welfare services have also been started in prisons and much work was also undertaken for the welfare of persons in detention camps.

Officers of the Department of Social Welfare are now administering personal grants and trust funds for minors, and the volume of this work increased appreciably during the year. These officers have also been engaged during the year in dealing with the problem of persons displaced as a result of the Emergency and those who have suffered material loss arising out of bandit activity.

The Department of Social Welfare is becoming increasingly more closely associated with voluntary welfare organisations. Voluntary organisations are assisted by Government grants-in-aid in the form of block grants. These are made on the general principle that the amount of Government financial aid is equivalent to that furnished by the voluntary organisations themselves.

Community feeding centres known as public restaurants continued in operation. These public restaurants provide meals for the lower income groups at a low price, with the assurance that the quality of the meals is maintained at an approved high standard, that they are prepared under hygienic conditions, and served in congenial surroundings.

During the year a management committee or a board of governors was appointed for each of the institutions maintained by the Department of Social Welfare. The Taiping Approved School Board of Governors have progressively assumed control of the school, and many institutions, homes and orphanages are now under the direct control of a board of management.

Many aboriginal groups received assistance during the year and considerable assistance was given to groups who were obliged temporarily to leave the jungle.

CHAPTER VII.

(Section 5.)

GOVERNMENT INFORMATION SERVICES.

The fundamental purpose of the Information machinery of the Government of the Federation, which is operated by the Department of Public Relations, is to raise the level of public understanding and to foster amongst the people the inculcation of interest in, and knowledge of, their political, social and economic responsibilities. In such a plural society as that of Malaya this is a task of some magnitude.

The major duties undertaken by the Department may be conveniently summarised as follows :

- (1) The dissemination of accurate information concerning the policies and actions of the Federal, State and Settlement Governments, and of Departments of Government, both within Malaya and to such organisations as the Information Department of the Colonial Office, which is responsible for official Malayan publicity in Britain and Overseas.

- (2) The supply to Government Departments of technical publicity advice; the maintenance of a number of distributive services; the production of such finished material as pamphlets and booklets; and the furnishing of other media of information and publicity on behalf of the Administration, of Government Departments, and of such bodies as the Public Health Education Committee.
- (3) The production and dissemination of material to counter undesirable propaganda.

In carrying out these duties, which are primarily concerned with the dissemination of information amongst the rural population, the majority of whom are illiterate, the functions of the Department may appropriately be defined as embracing Adult Education in its widest sense.

The bringing to the people, in their own languages and in a form in which it can readily be assimilated, of information concerning political issues, Trades Unionism, public health, the improvement of smallholders rubber production, co-operative marketing, and factual refutation of Communist propaganda, is undoubtedly an important contribution to the education of the rural population.

The Department undertakes a number of varied duties related to information and publicity activities as, for example, the editing of such official publications as the Federation of Malaya Annual Report, the answering of enquiries from overseas information agencies, the provision of information and material to Radio Malaya and the maintenance of a Federal Film Library. It is responsible for general relations between Government and the Press, which will always be one of the most important media for informing the public.

The needs and provision of facilities for visiting Correspondents and Journalists are also a responsibility of the Department.

Expenditure.

Total expenditure for the year 1949 on these services was \$921,648. This does not include a sum of \$47,800 made available by the Federal Government in December, 1949, as a result of requests by Malay State Governments for an increased number of Mobile Public Address Units.

In addition the Department undertook, without expansion of production or administrative staff, a considerable volume of work in connection with information, propaganda, counter-propaganda and psychological warfare as a result of the Emergency. Total expenditure for the year 1949 on such services amounted to \$109,936.

Press Releases.

During the year the Press Division of the Department issued 4,086 Press Releases.

Of this number 2,252 were issued on behalf of the Federal Government and Departments of Government, 678 on behalf of the State and Settlement Governments, 729 on behalf of the

Singapore Government, 268 on behalf of the Army, 113 on behalf of the Royal Air Force.

Publications.

Despite the inevitable concentration of effort necessitated by the Emergency, the constructive work of the Department was to some extent continued. Amongst simple publications in vernacular languages undertaken were those for the Trade Union Adviser's Department, the Co-operative Department, the Public Health Education Committee, the Malayan Association for the Prevention of Tuberculosis, and recruiting material for the Police and Malay Regiment. In collaboration with the Rubber Research Institute, visual material was produced for a publicity campaign aimed at improving the standard of rubber produced by Malay smallholders.

In addition, translation work was undertaken on behalf of the Prisons, Railways, Broadcasting, Co-operative and Trade Union Departments.

The regular vernacular productions of the Department continued. The weekly Malay paper (circulation per issue 50,000 copies) reached kampongs throughout the country. The weekly Tamil paper (circulation per issue 35,000 copies) was, with the co-operation of planters and others, widely read by Tamil labour. A considerable quantity of adult educational material was included in these publications despite the accent on the Emergency.

The monthly English pictorial paper published by the Department continued to average a sale of some 3,000 copies a month to senior schools and the general public, despite an unavoidable increase in its retail price.

Overprinting in Jawi, Chinese and Tamil of the Central Office of Information pictorial magazine "TO-DAY" continued. This publication is exceedingly popular and demand still far exceeds even the increased supply made available by the Colonial Office. It is of particular value for vernacular schools.

Mobile Units.

The Mobile Public Address Units continued to prove of very considerable value in reaching the rural population amongst whom adult literacy is low. The duties of Field Officers of these Units were arduous and dangerous. These duties included addressing in vernacular languages large audiences, drawn by the attraction of a film show and assembled at night on village padangs, on such subjects as Communist terrorism and banditry, the measures taken by Government to combat them and the necessity for information and assistance to the Security Forces.

Some 200,000 people were addressed in their own languages by these Units during each month of the year. An interesting development is the increased use of the Units by local officials, Malay penghulus, ketua kampongs and imams to address their people.

Federal Film Library.

There was an increased demand for the service provided by the Federal Film Library established and maintained by the Department of Public Relations which now contains more than 1,400 prints of

16 mm. educational films. An increased number of schools have bought their own projectors and films from the Library were seen by some 50,000 children. The Mobile Units of the Department are the greatest users but various progressive firms and rubber planting companies now use educational films from the Library in film shows for their employees as a welfare measure.

There was a noticeable increase in the number of educational films shown to Government employees and specialist audiences, e.g., nurses in training, doctors, teachers.

The total number of films despatched to users during the year was 3,886 copies.

Reading Rooms.

Despite the withdrawal by the Federal Government of financial support for Public Reading Rooms at the end of 1948 as a result of financial exigency, rural communities continue to institute and to maintain an increasing number throughout the country. There are now 125 Reading Rooms in the Federation as compared with 47 at the time when financial support was withdrawn. Of this number only 16 are supervised by the Department.

Community Radio Receivers.

A plan for the development of facilities for communal listening to radio in rural areas was prepared during the year and an application for funds for the purpose was made from the Colonial Development and Welfare Fund. It is considered that provided the essential facilities for transmission and specialised programmes can be organised, the progressive development of community listening facilities in 1950 will be of immense importance to mass development in the kampongs.

New Techniques.

The novel method of using a wire recorder to record addresses by Malay and Chinese leaders, which were then played back to the rural population by Mobile Public Address Units at meetings and assemblies, or broadcast by Radio Malaya, was successfully introduced in Kedah and Pahang during the year. Requests for its extension to other Malay States were received from State Administrations and it is hoped to extend the practice in 1950.

Staff.

The policy of training local Asian staff was continued. On 31st December, 1949, there were but three European officers in the Department, one of whom was an experienced Journalist on agreement. The number of officers employed in the Department at the end of the year 1949 was, in Division I posts 7; in Division II posts 18; in Division III posts 119; in Division IV posts 65.

Through the courtesy of the Colonial Office and the Financial Assistance of H.M. Treasury, a senior Malay Officer of the Department was enabled to undergo a 6-months' period of training in Britain in publicity and information work and methods, preparatory to acting as Deputy Director of the Department in 1950.

FILM UNIT.

In the early part of 1949 the Film Unit was, as an experiment, put on a semi-commercial basis. Government Departments requiring films were required to obtain the necessary financial provision for the purpose. Owing to the exigencies of the financial situation resulting from the Emergency, and the enforced reductions in Departmental Estimates for 1949, few Departments were in a position to avail themselves of the Unit's services on these terms.

A two-reel film on co-operative marketing of Rubber was produced for the Co-operative Department. A two-reel film in three languages of the Defence Scheme for the mines in the Kinta Valley, Perak, was made for local and overseas distribution. The remainder of the output of the Unit was largely devoted to newsreel work, which included a one-reel record of the inauguration of the University of Malaya. A two-reel recruiting film in two languages was also made for the Army. Assistance was provided to a visiting team concerned with making a film on Malaya in the J. Arthur Rank series "This Modern Age".

The average cost of production is estimated to be less than \$10.00 (Malayan) per foot of finished film.

The expenditure of the Malayan Film Unit in 1949 totalled some \$199,634.00.

At the end of the year arrangements were made by the Federal Government for an expert to visit Malaya to advise on the future of the Unit, the cost of his visit being met from Colonial Development Funds.

BROADCASTING.

With the exception of the Seremban medium wave station, which it was decided to close down in September, 1949, programmes continued to be broadcast daily from Radio Malaya through the existing stations in the Malay, Chinese, English and Tamil languages. Relays of programmes originating in Singapore provided an extensive part of the services in all languages rebroadcast through the Federation stations at Kuala Lumpur, Penang, and Malacca. Progress was also made in the essential matter of originating features within the Federation.

During the year, in addition to a series of talks on the Federation Constitution and another series on "What the Departments of the Federal Government" are doing, an increasing amount of material relating to the Emergency was included in all programmes.

The average number of hours of broadcasting in each language per week inclusive of schools broadcasts, was English $58\frac{1}{2}$ hours, Chinese $27\frac{3}{4}$ hours, Malay 25 hours, Indian $19\frac{1}{4}$ hours. Chinese programmes were broadcast in the Mandarin, Cantonese, Hokkien and Kheh dialects.

Throughout the year news of the Emergency took priority in all news bulletins of which there were in all languages a total of eleven each day. The total time devoted to news broadcasts amounted to over 900 hours. The total content of all news bulletins broadcast reached some seven million words.



Timber being transported
by rail to the sawmill.



Truck carrying timber fords
a stream on the way to the
sawmill at Kota Tinggi,
Johore.

The approximate proportion of broadcasting time allocated to the various types of programmes is estimated to average:

Features and Talks	.. .. .	8.2 per cent.
News Broadcasts	.. .. .	13.3 „
Entertainment	.. .. .	78.5 „

The licence fee for a radio receiver continued to be \$12 (£1 8s) per annum. A total of 34,711 licences were issued up to mid-December, 1949. The total revenue from this source was \$417,304.50 which includes receipts from the sale of 102 duplicate licences and 1,341 individual sale licences. There was an increase of \$131,570.50 in revenue over that of 1948 and of 10,929 in the number of licences sold.

The total estimated expenditure of the Pan-Malayan Department of Broadcasting for the year 1949 was \$2,806,396 as compared with \$1,755,623.29 for 1948.

Perhaps the most interesting feature during the year was the fact that the number of schools making use of the Broadcasting Service to schools increased by more than 60 per cent. At the end of the year 127 English schools, 90 Malay schools, 228 Chinese schools received the service. The corresponding figures at the end of 1948 were 123 English, 35 Malay and 107 Chinese schools. The weekly series for School Certificate Classes on current affairs and civics aroused much interest and discussion. One of the most successful series in the Malay School programmes was that dealing with general knowledge in which was included material on current affairs and civics.

CHAPTER VIII.

LEGISLATION.

Further progress was made during the year 1949 in unifying the laws throughout the Federation. For a period of over three months, a special appointment was created in order to expedite this task but, owing to transfers and shortage of staff, this special appointment could not be maintained. In addition, there were enacted several important measures dealing with intricate problems arising out of the occupation period. In all, seventy-five Ordinances were enacted. Those of particular interest are :

- (1) Three Ordinances relating to finance rendered necessary, *inter alia*, by the constitutional changes as follows—

- (a) The Treasury Bills (London) Ordinance, 1949 (No. 1 of 1949), conferring on the High Commissioner, when authorised by a resolution of the Legislative Council, power to borrow money by the issue in London of short term treasury bills.

- (b) The Government Trustee Securities Ordinance 1949 (No. 2 of 1949), enabling stock of the Government of the Federation to be treated as trustee securities in the United Kingdom.

- (c) The General Loan and Stock Ordinance, 1949 (No. 3 of 1949), providing for the raising of loans in London by the Government of the Federation and to authorise the Government to issue Federation of Malaya stock.
- (2) The Trade Dispute Ordinance, 1949 (No. 4 of 1949). Prior to the passing of this Ordinance there was no legislation in the Federation to control trade disputes except in Penang and Malacca. With some modifications, the Ordinance extends the law previously applicable in these Settlements, throughout the Federation.
- (3) The Customs Duties (Penang) Ordinance, 1949 (No. 11 of 1949), and the Rubber Excise (Penang) Ordinance, 1949 (No. 12 of 1949), are completely new legislation of a novel nature, enacted to give effect to recommendations made regarding the trade of Penang. In effect, they establish the Island of Penang as a "free port" distinct (for customs duties purposes) from the rest of the Federation.
- (4) The University of Malaya Ordinance, 1949 (No. 17 of 1949), enacted in conjunction with a similar Ordinance in the Colony of Singapore, gives legal recognition and status to the University of Malaya. The University is established in accordance generally with the constitution recommended by the Carr-Saunders Commission on University Education.
- (5) The Passports Ordinance, 1949 (No. 19 of 1949), replaced existing legislation with regard to passports which was merely enabling legislation providing for the making of regulations. The measure provides that persons entering the Federation must be in possession of valid travel documents.
- (6) The Incorporation (State and Settlement Legislatures Competency) Ordinance, 1949 (No. 24 of 1949), and the Trusts (State and Settlement Legislatures Competency) Ordinance (No. 25 of 1949), are two related Ordinances rendered necessary as a result of the provisions of the new Federal constitution. Power is conferred on States and Settlements to pass laws, in respect of certain subjects, for the incorporation of a person or body or for the establishment of a trust and the appointment of trustees and it is provided that such corporations and trusts are to be recognised throughout the Federation.
- (7) The Estate Duties (Apportionment) (Miscellaneous Provisions) Ordinance, 1949 (No. 27 of 1949), provides for apportionment of estate duties between the Federation and the Colony of Singapore in respect of estates of persons dying before the Malayan Union came into existence. Various provisions are also made with respect to payments of estate duty during the occupation and interest during that period.

- (8) The Societies Ordinance, 1949 (No. 28 of 1949), was enacted because it was considered that, in present circumstances, the maintenance of law and order would be assisted by providing for the registration of all local societies.
- (9) The Electricity Ordinance, 1949 (No. 30 of 1949), aims at ensuring the efficient and economical use of existing plant and the proper development of electricity supplies in the Federation. The Ordinance provides for the establishment of a Board to take over Government electrical undertakings and to control future development.
- (10) The Trust Companies Ordinance, 1949 (Ordinance 33 of 1949), introduces for the first time into the Malay States provision for the registration and regulation of trust companies. In the main it follows the provisions of the corresponding Ordinance of the Straits Settlements.
- (11) Probably the most important legislation enacted during 1949 was that dealing with matters arising out of the enemy occupation of Malaya.

After much time had been devoted to this problem by select Committees both in the Federation and in Singapore, the underlying principle adopted was that a transaction was not to be deemed invalid merely because it took place during the occupation period. To this principle, however, a number of important exceptions had to be made on account of the unusual circumstances existing during, and at the end of, the occupation.

In addition to the Debtor and Creditor (Occupation Period) Ordinance, 1948, enacted towards the end of the previous year, the following Ordinances dealing with this matter were enacted :

- (a) The Limitation (Amendment) Ordinance, 1949 (No. 35 of 1949);
 - (b) The Moratorium Proclamation (Repeal) Ordinance, 1949 (No. 37 of 1949);
 - (c) The Agents and Trustees (Occupation Period) Ordinance, 1949 (No. 38 of 1949);
 - (d) The Titles to Land (Occupation Period) Ordinance, 1949 (No. 39 of 1949);
 - (e) The Dealings in Land (Occupation Period) Ordinance, 1949 (No. 40 of 1949), and
 - (f) The Dealings in Land (Malacca Customary Lands) (Occupation Period) Ordinance, 1949 (No. 41 of 1949).
- (12) The Powers of Attorney Ordinance, 1949 (No. 64 of 1949), replaces the different laws relating to this subject previously in force throughout the Federation with one ordinance based mainly on the law previously in force in the Federated Malay States, but with modifications designed to prevent frauds.

- (13) The Trustee Ordinance, 1949 (No. 66 of 1949), while unifying the law relating to trustees on the basis of the United Kingdom Trustee Act, 1925, also extends such a law, for the first time, to four of the former unfederated Malay States.
- (14) The Government Contracts Ordinance, 1949 (No. 67 of 1949), provides for the making of contracts on behalf of the Government of the Federation, at the same time unifying the law as to contracts made on behalf of Governments of the States and Settlements.
- (15) The National Emblems (Control of Display) Ordinance, 1949 (No. 69 of 1949), prohibits, with certain exceptions, the display of foreign national emblems in public or in schools.
- (16) The War Damage Ordinance, 1949 (No. 73 of 1949), represents the final decisions taken on the controversial subject of providing compensation for war damage. The Ordinance, as finally enacted, carries out the policy on this subject agreed upon between the Governments of the United Kingdom, the Federation and the Colony of Singapore.
- (17) The Rubber Shipping and Packing Control Ordinance, 1949 (No. 74 of 1949), was enacted after representatives of the rubber industry had agreed that legislative action was desirable to remove the grounds of complaints received from abroad regarding the grading and packing of shipments of rubber from Malaya. The Ordinance provides for the establishment of a Malayan Rubber Export Registration Board to regulate the packing and shipping of rubber for export. Apart from the Chairman the Board is comprised solely to representatives of the industry, thus giving effect to the policy that the industry should regulate its own affairs.

With certain exceptions such as the Electricity Ordinance, 1949, and the Rubber Shipping and Packing Control Ordinance, 1949, practically all the legislation for the year was occasioned by one of the three following factors :

- (a) The war and the subsequent enemy occupation of Malaya.
- (b) The Emergency.
- (c) The pressing need to unify and consolidate existing State and Settlement legislation following on the post-war constitutional changes.

In addition to the actual ordinances, it should be recorded that the Emergency gave rise to the enactment of a considerable volume of regulations under the Emergency Regulations Ordinance, 1948. The new regulations varied from amendments to existing

regulations and new regulations of a minor nature to important matters as, for example, extending the application of the Passengers Restriction Ordinance of the Straits Settlements (S.S. Cap. 93) throughout the Federation. A considerable volume of other subsidiary legislation was also enacted.

THE LEGAL DEPARTMENT.

The authorised establishment of the Legal Department during the year 1949 included the Attorney-General, the Solicitor-General, the Legal Draftsman, the Assistant Legal Draftsman, and 15 Federal Counsel, the latter figure including a leave reserve of three. At the commencement of the year, however, there were only 11 Federal Counsel in the Department.

During the year four Federal Counsel were on leave at different times and two recruits arrived in the Federation in May.

There were thus only 10 officers (and, on occasions, only 9) actually available for duty as Federal Counsel during the year.

Of the available officers, it is necessary that at least six be stationed away from headquarters to act as Legal Advisers to the different States and Settlements as follows : Senior Federal Counsel, Johore, stationed at Johore Bahru; Federal Counsel, Kelantan and Trengganu, stationed at Kuala Trengganu; Federal Counsel, Kedah and Perlis, stationed at Alor Star; Federal Counsel, Negri Sembilan and Malacca, stationed at Seremban; Senior Federal Counsel, Perak, stationed at Ipoh; and Federal Counsel, Penang, stationed at Georgetown. In addition, the Senior Federal Counsel and a Federal Counsel stationed at headquarters in Kuala Lumpur perform the duties of Legal Adviser, Selangor, and Legal Adviser, Pahang, respectively.

The legal and legislative problems of the Federation show no signs of abating. On the advisory side the Department has been called upon to deal with a vast amount of work arising directly or indirectly from the new constitutional arrangements.

The Emergency continued to add considerably to the large volume of work with which the Department had to cope during the year.

CHAPTER IX.

JUSTICE.

Active Operation of the New Organisation of the Judicial Department.

The planning of the new judicial organisation took place in the year 1948 and is described in the Federation of Malaya Annual Report for that year. On the 1st January, 1949, the Courts Ordinance, 1948, came into force and repealed the Malayan Union Courts Ordinance, 1946, the Courts Enactment (Cap. 2) of the Federated Malay States, the Courts Ordinance (Cap. 10) of the

Straits Settlements and the various Courts Enactments of the States of Kedah, Kelantan, Johore, Perlis and Trengganu. From the 1st January, 1949, the various Courts in the Federation (with the exception of Kathis' Courts) are governed by the Federation of Malaya Agreement, 1948, and the Courts Ordinance, 1948.

The task for the year 1949 was to ensure that the new organisation was put into effective and active operation. The Federal Registry was brought into being so as to keep administrative control of the various Registries and Courts constituted at places throughout the Federation and ensure that instructions in the form of circulars, etc., were uniform and issued from one central and authoritative source. This Federal Registry has proved its value and is now the main-spring and an indispensable part of the administrative control of the Judicial Department.

Another innovation is that Judges of the Supreme Court in the Federation are responsible for the inspection of Sessions and First Class Magistrates' Courts. This inspection system has already proved of great value and is much appreciated by Magistrates, who can now turn to Presidents of Sessions Courts and Supreme Court Judges with any difficulties they may encounter. This also has the added advantage that it keeps Judges in close touch with the administration of justice in Subordinate Courts.

Magistrates at Headquarters.

One of the objects of the new organisation is to raise the standard of judicial work in Magistrates' Courts and one of the methods of achieving this is for three Magistrates at a time to be attached to the Supreme Court at Kuala Lumpur, under instruction. During 1949 the number of such Magistrates given a training course at the Supreme Court, Kuala Lumpur, was 12. Appreciation has been expressed by all Magistrates who have done the course that they have gained experience, particularly concerning the practical side of Court matters.

Another of the objects of the new organisation is to assist indigenous officers of exceptional aptitude for law to become professionally qualified so as to fit themselves for progress towards the higher judicial and legal posts. After careful consideration of reports on all Magistrates made by Presidents of Sessions Courts and Supreme Court Judges, one Magistrate, selected by the Chief Justice, has been seconded to the Attorney-General's Department to gain law office experience. If he obtains a satisfactory report from the Attorney-General, Government will be asked to approve the award of a Judicial Department scholarship so that this officer can proceed to England to be called to the Bar.

Abolition of Redundant Posts.

Early in 1949 the staffing position as regards all Courts was investigated with a view to the abolition of posts which might be considered redundant. This resulted in a total of 80 posts being considered redundant, including one President of Sessions Court and one Assistant Registrar, Supreme Court. The majority of these posts were abolished during the course of the latter part of

1949. In the large majority of cases it was found possible to avoid retrenchment of the occupants of these posts. One of the results of this is that five Magistrates' Courts, which were previously operated as open Courts, are now normally kept closed, with the Magistrate bringing staff and records from his Headquarters station on visits thereto.

Future Developments.

A start was made with regard to unified rules of practice and procedure for Subordinate Courts in both the Malay States and the Settlements. The first draft of new Subordinate Court Rules was prepared and was considered by an *ad hoc* committee appointed and presided over by the Chief Justice. This Committee finished its deliberations early in 1950 and the draft Rules are expected to come into operation during the course of 1950.

Juvenile Courts.

Although the Juvenile Courts Ordinance, 1947, was enacted on the 18th September, 1947, it was not brought into force until the 1st December, 1949. The bringing into force of that Ordinance throws extra work on Presidents of Sessions Courts because juveniles, that is persons between the ages of seven and seventeen, can only be tried in Juvenile Courts presided over by a President of a Sessions Court assisted by certain members of the public appointed as advisers.

Whitley Councils.

Action was started in 1948 to create a Whitley Council for interpreters and a Constitution therefor was accepted by the Federal Government in March, 1949. Three meetings of the Interpreters' Whitley Council were held in 1949.

Moratorium.

The moratorium, which had existed since the liberation of Malaya from the Japanese, was terminated by the Moratorium Proclamation (Repeal) Ordinance, 1949, which came into force on the 1st October, 1949. On the same date the Courts (Restriction of Civil Jurisdiction) (Repeal) Ordinance, 1949, came into force. The effect of this is that there are now no restrictions on actions being brought in the Courts, and there is bound to be an increase in civil litigation.

Interpretation Tribunal.

The Court of Appeal referred the first matter to the Interpretation Tribunal constituted under Clause 153 of the Federation of Malaya Agreement, 1948, on the 6th December, 1949.

The Emergency.

The Emergency, which was declared to exist from the 12th July, 1948, continued throughout the whole of 1949, and, unfortunately, it cannot be said that the number of Emergency cases coming for

trial in the Courts decreased by any appreciable extent during the year under review. The Emergency Regulations, 1948, continued in force during 1949 and were amended in certain respects.

The Emergency (Criminal Trials) Regulations, 1948, continued in force and the advantage, which soon became apparent as regards the abolition of fixed dates for the Court of Appeal and for the Assizes, namely the speeding-up of the hearing of criminal and civil cases and also appeals was continued. The Court of Appeal sits continuously throughout the year and so does the High Court in Assize. So long as the Emergency lasts the Court of Appeal sits in Kuala Lumpur for the disposal of criminal appeals and as regards civil appeals, the Court of Appeal sits in Penang, Ipoh, Kuala Lumpur and Kota Bharu.

At the beginning of 1949 certain Committees of Review, established under the Emergency Regulations, 1948, became so busy that it was found necessary to second officers from the Judicial Department to the administration for special duty as full-time Chairman. Two Presidents of Sessions Courts were so seconded from February, 1949, and one was seconded from April, 1949. This meant that their services were lost to the Judicial Department for the major portion of 1949 and this threw a heavy burden on the remainder of the Presidents of Sessions Courts.

Statistics.

(a) Court of Appeal :

- (i) Criminal—One hundred and nine criminal appeals were heard relating to 138 persons ; 91 were appeals against sentences of death mainly in cases under the Emergency Regulations.
- (ii) Civil—Twenty-four civil appeals were entertained compared with 42 in 1948. At the end of the year seven civil appeals were pending.

(b) High Court :

- (i) Criminal—Three hundred and twenty-one cases involving 474 persons and 530 charges were decided resulting in 83 discharges, 91 acquittals, 350 convictions and six were remitted or transferred to other Courts. This is a decrease on 1948 figures and although offences against the person are approximately the same there is a substantial decrease in offences against property and offences against public health and public order over the figures for 1948.
- (ii) Civil—Seven hundred and sixty-three civil suits were disposed of compared with 504 in 1948. 4,602 grants of Probate and Letters of Administration were made and 158 grants were resealed. The figures for 1948 were 2,558 and 311 respectively. Miscellaneous Applications in Chambers were 1,797 as compared with 1,639 in 1948. 50 Bankruptcy Petitions were filed, 70 Bankruptcy Notices were issued and 42 Receiving Orders were made ; the comparative figures in 1948 were 17, 61 and 12 respectively.

(c) Sessions Courts :

(i) Criminal—Five thousand seven hundred and thirty-nine criminal cases were decided, 6,801 persons being charged in respect of 7,404 charges. Convictions were recorded on 4,868 charges.

(ii) Civil—Seven hundred and sixty-six civil cases were disposed of compared with 963 in 1948.

(d) Magistrates' Courts :

(i) Criminal—Seventy-six thousand four hundred and forty-six criminal cases were decided, 91,639 persons being charged in respect of 96,010 charges. Convictions were recorded on 79,446 charges. These figures are practically the same as in 1948.

(ii) Civil—Four thousand one hundred and sixty-two civil suits were disposed of compared with 3,494 in 1948.

(e) Inquests and Enquiries into Deaths :

There were 2,690 inquests and enquiries into deaths compared with 1,736 in 1948.

(f) Revenue :

	1949.		1948.
Supreme Court ..	\$ 361,565.36	..	\$ 141,891.85
Sessions Courts ..	175,035.99	..	449,084.18
Magistrates' Courts ..	1,243,798.95	..	1,038,332.94
	<hr/>		<hr/>
	\$ 1,780,400.30	..	\$ 1,629,308.97
	<hr/>		<hr/>

CHAPTER X.

POLICE.

The emergency has overshadowed all the activities of the Police Force throughout the year and, consistent with essential normal Police duties and with the task of administering, training and developing the Force as a whole, the aim has been to get every available man into the field in active operations against the bandits.

It is a fair assessment of the results of this concentration upon operations to say that the bandits failed in their expressed objectives of disrupting the Government and economy of Malaya and establishing "liberated areas" in which control would rest squarely in their hands. Not only has their programme been disrupted but they themselves have been forced into the jungle where the problems of food, clothing and equipment have been difficult to surmount. There is evidence to show that in several parts of the country they are ill-fed, ill-clothed and harried by disease. Their power to strike has suffered correspondingly and for the greater part of the period under review it has been evident that they were reluctant to attack targets unless they were unguarded or lightly guarded or unless they could count on the advantage of surprise and were able to operate from prepared positions with clear escape routes.

During 1949, 618 bandits were killed, 337 captured, 1,250 camps discovered and destroyed and 3,020 weapons recovered (includes automatic weapons, rifles, pistols and grenades); and a considerable amount of ammunition of all types was seized together with other equipment, documents and foodstuffs.

In operations against the bandits the Police Force has enjoyed effective and generous support from the Armed Forces.

The full prosecution of the campaign against militant communism necessitated a very considerable measure of training of operational police in jungle tactics and much staff work and planning both at Police Headquarters in Kuala Lumpur and at the various Contingent Headquarters and lower levels. The Force has been fortunate in being able to send officers and S.P.Os. on courses at the F.A.R.E.L.F. Jungle Training School at Tampoi, Johore, and these men have instructed others on returning to their stations. A Police Jungle Training School was established in Kedah which will increase the flow of policemen with the specialised knowledge necessary for operations in the jungle. The number of police jungle squads increased from a comparatively small number at the beginning of the year to 235.

Very large numbers of suspects have been rounded up during police and military operations or have been arrested on information. At the end of the year under review 5,575 persons were detained under Emergency Regulation 17(1) and 4,377 squatters under Emergency Regulation 17D. Considerable progress has been made in clearing up the backlog which existed at the beginning of the year in the hearing of cases in the former category by Committees of Review and the build-up of C.I.D. formations and increased experience in emergency conditions have enabled the screening of suspects to be carried out more speedily and effectively. Very careful investigation was made of all cases before orders of detention were applied for under Emergency Regulation 17(1) and these are sought by the Police only where a satisfactory amount of information existed.

The achievements in this sphere of police work have been considerable and the general security situation had improved at the end of the year but the need is for even more intensified effort if a reasonably speedy return to normal conditions of life is to be made. The bandits are still capable of outrages on life and property and attacks must be expected.

Concurrently with the operational drive against banditry, much work has been devoted to the re-organisation of the Force, which has continued to grow in officers, men and equipment throughout the period under review. The organisation and functioning of specialist branches such as Signals, Transport and Marine have been improved and extended (these are dealt with in more detail later in this report), large numbers of new recruits have been trained and posted to duty, new police stations and posts have been built and in some Contingents—Kelantan, Kedah, Pahang and Negri Sembilan—certain police districts have been re-organised in Circle formations.

At the same time the normal policing of the country continued, police formations performing their primary duty of maintaining

law and order in urban and rural areas by the prevention, detection and prosecution of crime. Returns show that serious crime was kept to proportions which are reasonable in the circumstances which prevailed particularly if it be remembered that during an emergency the public is less inclined than normally to report crime to the police.

Strength.

The increase in the strength of the Force from 31-12-48 to 31-12-49 was as follows :

	Strength as on 31-12-48.	Strength as on 31-12-49.
Gazetted Officers	250	333
British Inspectors	23	24
Asian Inspectors	226	295
British Sergeants	495	442
Rank and File :		
Malay	9,764	12,549
Indian	1,136	971
Detectives	693	768
Veterinary Police	113	117
Extra Police Constables ..	3,623	3,466
Clerks (G.C.S., S.C.S., P.C. & I., Temporary) ..	534	808
Miscellaneous Posts	216	379
Special Constables	28,719	29,984
Casualties during the same period were :		
Retired		372
Killed		116*
Died		53
Resigned		65
Dismissed		149
Transferred		9
Discharged		15

Nine officers and 66 other ranks were wounded in the course of duty.

Honours and Awards.

O.B.E.	1
Honorary O.B.E.	1
The King's Police Medal for Distinguished Service	4
The Colonial Police Medal for Gallantry	7
The Colonial Police Medal for Meritorious Service	10
The Royal Humane Society Medal	1

* Killed—

5 Gazetted Officers
2 Probationary Asiatic Inspectors
81 Rank and File
9 Detectives
19 Extra Police Constables

Training.

Four thousand two hundred and thirty-five recruits for the Regular Force have passed through Police Depots during the year and as the numbers of Rank and File approached the approved establishment figure of 14,522, it became possible to close the Depots at Tanjong Rambutan (August, 1949), and Johore Bahru (June, 1949). Also, the training period for recruits has now been extended from five months to eight.

Eighty-nine Probationary Asian Inspectors were recruited under direct appointment in 1949, whilst twenty-eight members of the Rank and File were promoted to be acting Sub-Inspectors with a view to eventual promotion to Probationary Asian Inspectors. Forty-one Probationary Asian Inspectors have been posted for duty. Seven Probationary Asian Inspectors were appointed to the Frontier Force.

Having completed the intake and training of the very large numbers of recruits it has now become possible to plan refresher, Superior Police Officers and specialist courses. Since April, 527 Superior Police Officers, 634 Police Constables and 126 Detectives have attended the courses.

Personnel.

The Personnel Branch at Police Headquarters, responsible for dealing with all staff matters, has been augmented and is now functioning smoothly. Although much of the work is of a routine nature, the majority of the tasks involved still call for the solution of innumerable problems covering the conditions of service of officers, Rank and File and civilian Police employees. Not the least of these has been the revision of existing schemes of service and the drafting of new ones to cover new branches of the Force.

A heavy task completed during the year was the compilation and verification of more than twenty-two thousand claims from police personnel for campaign medals and stars.

Force Transport.

The Force transport fleet at the end of 1949 stood at 1,428 vehicles of all types which, during the year covered 14,521,197 miles. Two hundred and eleven privately-owned vehicles were derequisitioned and returned to their owners and all vehicles now in use are held on police strength. The total cost of running this transport was \$2,066,479.

A system of accounting to cover the operation and maintenance of Force vehicles has been evolved which will shortly enable the cost per run mile of each vehicle to be calculated precisely.

A motor transport and marine workshop has been established at Glugor, Penang, and is in operation, covering major repairs to vehicles and launches on the strength of formations in North-west Malaya. Contingent Headquarters workshops have been expanded where possible.

A drivers' training school was formed at the Police Depot during this year.

Signals.

The police wireless communications system has continued to make fairly steady progress although slow delivery of equipment from the United Kingdom and defects in some which arrived retarded development.

Regarding high frequency wireless, at the beginning of the year there was a total of 30 stations and by December there were 80 stations, including 4 sets on the mail trains and 7 on police marine craft.

The strength on 31st December, 1949, was two gazetted officers, 187 wireless operators, 25 teleprinter operators and 34 telephone operators.

All but two Contingents are connected with Police Headquarters by teleprinter.

All operators are now members of the Regular Force and draw trade pay for their specialist knowledge. A W/T training school has been started and will be extended when the necessary equipment has been obtained. A maintenance organisation is also receiving close attention.

Experience has proved the value of wireless in jungle operations and experiments with various types of mobile sets were still being carried out at the end of the year. It is hoped to develop this aspect of the branch as equipment and operators become available.

Marine.

This branch of the Force is based on Penang and operates within the territorial waters and rivers of the Federation. Twenty-two launches are now in commission, including two 72-foot Harbour Defence Motor Launches which have been generously loaned by the Royal Navy. In addition some eighty hulls powered by outboard motors are operated by uniformed police on rivers in the various Contingents.

A Police marine school in Penang undertakes the training of recruits in seamanship, navigation and similar subjects.

The total number of hours run for the year is 18,978. Seven hundred and twenty-six vessels were investigated at sea.

Supplies and Equipment.

The supplies branch of the Force has been responsible for the provision of clothing, arms and equipment, rations, accommodation and all additional requirements of the Force, including the Special Constabulary.

Purchases of arms and ammunition effected during the year have made the Force practically self-sufficient in these items and arms previously obtained from the Services on loan are in process of being returned.

Difficulties of supply have been aggravated by shortage of materials in the United Kingdom and length of shipping time to this country. Some idea of the volume of work handled by this branch is disclosed by the fact that \$2,027,549 worth of normal stores were obtained through the Crown Agents during the year.

Building Programme.

The following new police buildings were completed :

- (a) Twelve Frontier Force police posts.
- (b) Nineteen police stations.
- (c) Additional Rank and File accommodation at 55 existing police stations and posts.
- (d) One Jungle Training School, a magazine and an armoury.
- (e) Four offices (including two existing buildings which were converted).
- (f) Eleven quarters for officers and clerks.
- (g) One Marine and M.T. Workshop.
- (h) One officers' mess and the extension of another.

Work on the following new police buildings commenced during the latter part of the year :

- (a) Twenty-one new police stations.
- (b) Additional accommodation for Rank and File at 20 existing police stations and posts.
- (c) Fifty quarters for officers and clerks.
- (d) One M.T. Workshop.
- (e) One European Sergeants' mess.
- (f) Two headquarters' offices.
- (g) An extension of one officers' mess.
- (h) Five armouries.

Frontier Force.

During the course of the year a Frontier Force of approximately 600 officers and men has been recruited, trained, equipped and posted to duty. The personnel are on special terms of service, designed to cover the requirements of this branch of police work and to attract men with local knowledge of the frontier areas. Duties include anti-bandit patrols, prevention of arms smuggling and illegal immigration and general control of the population living in frontier zones.

The Force is under the command of the Chief Police Officers of the four States concerned.

Special Constabulary.

During the course of the year the strength of European Sergeants was reduced from 495 to 442 by casualties, resignations, discharges, etc. During the year six were killed in the execution of their duty and nine wounded. Two European Sergeants were awarded the King's Police Medal for gallantry, one of which was posthumous. European Sergeants also received 31 special awards for gallantry and devotion to duty.

Every effort has been made to encourage these men to study the languages of the peoples of Malaya. During 1949, one hundred and twenty-nine passed an examination in spoken Malay of similar standard to Government Standard I—39 of them with distinction. One Sergeant passed in Tamil.

Two hundred and thirty Sergeants attended a special refresher course at a European Sergeants depot under canvas at Kuala Kubu.

Some 20 men attended courses with the Malay Regiment and 26 attended the course at the Army School of Jungle Warfare at Tampoi, Johore.

As the standard of efficiency of Special Constables improved it was possible to reduce the number of Sergeants employed on estates and mines and to use them as leaders of jungle squads, in which role they have been extremely useful.

The strength of the Special Constabulary at the beginning of 1949 was 28,719. The maximum strength reached during the year was 31,973. By 31st December, 1949, it was possible to reduce the strength to 29,984.

Fifty-two men were killed and eight wounded in the execution of their duty.

The Colonial Police Medal for gallantry was awarded to three Special Constables (one posthumously) while there were 176 other awards and commendations.

In order to facilitate the administration of this large force, which is widely scattered throughout the Federation, arrangements were made for a number of planters and miners to be given honorary rank in the Auxiliary Police, so that they could exercise powers of command and discipline over the Special Constables stationed on estates and mines. Details of numbers of such officers are as follows :

Honorary A.S.Ps.	4
Honorary Inspectors with disciplinary powers ..	552
Honorary Inspectors with powers of command only	189

These appointments were made on recommendations of Chief Police Officers and after mutual agreement with representatives of mining and planting organisations.

Auxiliary Police.

The Auxiliaries numbered 46,673 at the end of the year.

CRIMINAL INVESTIGATION DEPARTMENT.

Crime Branch.

The routine work of this branch of Criminal Investigation Department increased in proportion to the increased activity of the security forces. All offences under the Emergency Regulations are seizable and registrable.

Matters affecting squatter removal under Emergency Regulation 17D were handled by this branch. Seventeen operations under the regulation were carried out.

The branch also undertook banishment under the Banishment Enactment. Repatriation of banishees continued until September when it was stopped owing to the situation in China. One hundred and seventy-nine Orders of Banishment were signed during the year, and a total of 300 persons were deported, including 288 Chinese. Five hundred and eighty persons were still awaiting shipment at the end of the year, many of whom were still serving their prison sentences. The following table shows the number of Banishment Orders issued, the number of banishees who sailed, and the balance

due to sail on completion of prison sentences and when facilities are again available :

Year.		O/B issued.		Sailed.		Balance.
1947	.. ..	345	..	218	..	127
1948	.. ..	612	..	313	..	299
1949	.. ..	179	..	25	..	154
		<hr/>		<hr/>		<hr/>
		1,136	..	556	..	580
		<hr/>		<hr/>		<hr/>

A considerable volume of work has been handled by the Central Criminal Registry and Record Office and Police Photographic Section. New photographic sections have been established at Ipoh, Tapah, Taiping, Alor Star, Penang, Kota Bharu and Seremban.

Special Branch.

This branch, formed in August, 1948, on the dissolution of the Malayan Security Service, is responsible for covering political and security information.

During the year its officer and clerical strengths have been increased and additional office accommodation provided.

A Scotland Yard Special Branch expert visited the Federation in June, and gave valuable advice on general organisation and procedure, especially in regard to the Special Branch Registry.

PENAL ADMINISTRATION.

There are 22 penal establishments in the Federation and these are classified as follows :

Central Prisons	.. ..	6
Local Prisons	.. ..	8
Female Prisons	.. ..	7
Advanced Approved School (Borstal)	.. ..	1

With one exception all prisons are under the control of prison officers.

Central prisons receive all classes of prisoners irrespective of sentence.

Local prisons receive all classes of prisoners but retain only those sentenced to a term of imprisonment not exceeding twelve months.

The Advanced Approved School receives all young offenders between the ages of 14 and 17 years who are ordered detention by the Juvenile Courts under the provisions of the Juvenile Courts Ordinance, 1947. Young prisoners of this age group sentenced to imprisonment are also transferred to the School.

At all Central Prisons and some Local Prisons separate accommodation is provided for unconvicted persons. In all cases such persons are strictly segregated.

Central Prisons are in charge of Superintendents and Local Prisons are controlled by Gaolers or Senior Prisons officers under the supervision of the Superintendent of the District. The Headquarters office of the Department is situated at Taiping at which station there is the largest Central Prison.

Remission of sentence up to one quarter of the total period of imprisonment is granted to all prisoners sentenced to periods in excess of twelve months. Prisoners sentenced to over one month

and up to twelve months are granted a remission of one-sixth of their sentence. Remission is awarded at the commencement of a sentence and any forfeiture for misconduct is deducted in days.

With a view to relieving overcrowding construction was commenced upon a new prison camp to accommodate 500 prisoners. The camp should be ready for occupation early in 1950. Funds were also provided for the construction of a new Advanced Approved School which should also be ready for use about June, 1950.

During the year there were 15,314 persons admitted to prisons. Of these, 6,922 were sentenced to penal imprisonment, 4,859 were committed for safe custody, and 3,583 persons were detained under the Emergency Regulations. The total number of persons in prisons at the beginning of the year was 5,073, and at the end of the year 3,472. The reduction was almost entirely due to the removal of detainees to detention camps.

The total convicted population was made up of 3,668 Chinese, 2,166 Malays, 879 Indians, and 209 other nationalities. The daily average prison population throughout the year was 4,179.75.

Over 3,500 of the total convicted population were between the ages of 25 and 50 years and the average age of recidivists was 35 years. The chief offences for which persons were sentenced to imprisonment were Stealing, Housebreaking, Robbery with violence, against the person, against property and against Emergency Regulations.

The discipline in the prisons of the Federation was, on the whole, good. There were only three escapes from prison custody throughout the year.

A small programme of new building and minor alterations to existing buildings was carried out. Emphasis was placed upon the security of prison buildings owing to the conditions brought about by the Emergency. The prison buildings have not yet recovered from the effects of the Japanese occupation but progress in this direction is very gradually being made.

Legislation to modernise the penal system in respect of Classification, Remission, Payment to Prisoners, Letters and Visits and Progressive Stage System was prepared during the year and will be introduced in 1950.

Educational classes were expanded, prison libraries enlarged, physical training and games introduced, and monthly cinema shows initiated. Industrial training and handicraft classes were considerably increased in the year under review and the following trades are now carried on :

Carpentry	Baking
Cabinet Making	Laundry
Tailoring	Net Making
Shoemaking	Metal Licence Plates for
Tin Smithing	Trishaws
Printing and Bookbinding	Rope and Mat Making
Rotan Work	Cane Chair Making
Lace Making (women)	Soft Toy Making (women)
Crochet Work (women)	Mat Weaving (women)
Cloth Weaving	

The moral, educational and industrial training of women prisoners was completely reorganised and placed upon a firm basis.

Proposals for the establishment of a Warders' Training Depot were approved during the year and arrangements made for the training of recruits and serving Warders, as well as for promotion and refresher course. The hours of duty of the subordinate staff were reduced to 96 hours a fortnight with alternate week-ends off duty. Educational classes for Warders were introduced and were most successful. An Asian Warders' Co-operative Society was formed during the year.

Considerable progress was made in the year under review with the extension of After Care arrangements for prisoners. It was arranged to utilise the existing organisation of State or Settlement Welfare Committees for the administration of After Care and this has proved very satisfactory.

CHAPTER XI.

PUBLIC UTILITIES.

Electricity.

The year 1949 was momentous in the history of the Electricity Department, marking its cessation as a Government department after nearly twenty-three years of steady progress in contributing to the public electricity supplies of Malaya.

The Government Electrical Department first came into existence in the year 1906 as a sub-department of the Public Works Department, supplying electricity to Government buildings and quarters in Kuala Lumpur. This undertaking gradually developed until it became a public supply. On the 1st January, 1924, the Government took control of the public electricity supply in Seremban from Messrs. United Engineers, Ltd. On the 30th January, 1926, the public supply to Ipoh from a new Government-owned power station was inaugurated; this town being previously supplied in bulk since 1923 by Messrs. Pengkalan Tin, Ltd.

In 1926 the demand for supply of electricity especially by the tin industry, had so greatly increased that it was decided to form an independent Federal Government Electrical Department. The first Director of this new Department took office on 1st January, 1927. By the end of 1949 out of 126 towns and villages receiving public electricity supplies 60 were supplied by the department later known as the Government Electricity Department.

On 1st September this year the functions of the Electricity Department were absorbed by a self-financing commercial body known as the Central Electricity Board. The setting up of the Central Electricity Board, as provided by the Electricity Ordinance, 1949, follows the precedent established in most developed countries where it has been found desirable to bring the expansion of electricity supplies under the control of a central authority. At the end of the year the estimated shortage of generating plant to satisfy the demand throughout the country was still in the region of 120,000

kilowatts. In addition to carrying out the completion of new thermal electric and hydro electric schemes originally commenced or considered by Government, the Central Electricity Board will be responsible for the development of a Malayan grid scheme. The grid scheme will cause the effective power from existing generating plant to be increased by relieving some of the larger undertakings of the necessity of carrying as much stand-by plant as they have to do as isolated units.

The development of the electricity supply undertakings formerly owned by Government proceeded steadily throughout the year. Financial stringency and delays in the delivery of materials, especially steel, did however slow up the work to a great extent.

The total units sold by Government owned undertakings during the first eight months of the year amounted to 78,356,493 units which showed an increase of 13,749,241 units during the same period in the previous year.

A new 60,000 lb./hour boiler, installed at the latter end of 1948, enabled the output of Bungsar Power Station, Kuala Lumpur, to be increased by approximately fifty per cent. Further measures to increase the output of this station by the installation of an additional 75,000 lb./hour boiler and the extension of the circulating water spray cooling plant were nearing completion at the end of the year. Nevertheless the industrial demand for supply of electricity in Selangor cannot be fully met until the new thermal Power Station at Connaught Bridge is in commission.

Work on the construction of the first half of the 80,000 kilowatts Power Station at Connaught Bridge, Klang, has progressed steadily, though rather more slowly than originally anticipated. In April the foundation of the first half of the main building were commenced. This work entailed the driving of 829 reinforced concrete piles ranging from 30' to 40' in length. The foundations for the first two 20,000 kw. turbines were completed during the year. Preliminary work on construction of the River Pump House was commenced in October and the erection of steel work for the Main Building was commenced in December. Sixteen staff quarters were completed during the year.

Investigations in connection with the proposed 100,000 kw., two stage, hydro electric scheme at Cameron Highlands and the smaller 800 kw. Robinson Falls scheme continued throughout the year. This work included detailed analysis of rainfall, river flow statistics and the building of a measuring weir on the Sungei Bertam. The analysis of the 1948 rainfall showed that year to be the driest on record for 13 years.

A total of 1,404 kilowatts of new Diesel Electric generating plant was installed during the year; the largest unit being 530 kw., erected in Malacca. These additions brought the total installed capacity of this type of generating plant operating throughout the Federation of Malaya under the control of the Electricity Department up to 11,038 kilowatts.

Relations between the Management and employees remained satisfactory throughout the year. The five Kilat Clubs in Kuala Lumpur, Taiping, Ipoh, Seremban and Johore Bahru continued

to thrive and provide recreation facilities for employees. It is hoped that the number of these clubs will increase and their activities will develop still further as time goes on.

Drainage and Irrigation.

The general aim of the Government is, by the execution, maintenance and operation of irrigation schemes, land drainage schemes and schemes for river deviations and flood mitigation, to ameliorate conditions for the rural and agricultural peasantry, and to establish a foundation for their rural betterment and material progress.

It is extremely unlikely that Malaya can hope ever again to procure from abroad, rice in the quantities which she obtained before the war in order to meet two-thirds of her requirements. The world rice shortage is no temporary one which will disappear when the economics of the great granaries of Burma, Siam and Indo-China have recovered from the effects of the war. The basic fact is that the demands of South East Asia's 800 million inhabitants have now exceeded the production of her rice lands. Every year according to population statistics, 10 million more mouths have to be fed. The rate of population increase in Malaya alone is 100,000 per annum. In view of this, prudence demands that a determined attempt be made to reduce the degree of the country's dependence on foreign sources for the supply of rice, the staple food of the people. High priority during the year was, therefore given to the opening up of new areas for rice production and to the improvement of existing rice-growing areas to obtain higher yields.

A brake to progress in the past has been the uncertainty of the provision of funds for development purposes under the normal government system of annual budgetting. It takes a few years to carry through to completion, the planning, design and execution of drainage and irrigation schemes. For satisfactory progress it is desirable that sufficient funds be provided each year for a number of years. This desideratum has now been achieved by the inclusion in the Schedule of the 1949 Loan Ordinance of an allocation of \$18,000,000 for the execution of drainage and irrigation schemes. Based on this allocation, a programme has been prepared to complete within the next five years, thirty-three schemes in different parts of the country. The programme includes the conversion of 65,000 acres of swamp jungle into productive padi land, the improvement of irrigation facilities to increase yields on 172,000 acres of existing padi land. In addition to this Loan Programme, work is in hand on schemes for increasing rice production, financed from State and Federal funds, which will open up 20,000 acres of new padi land and improve conditions on 112,000 acres of existing padi land.

Despite difficulties, owing to lack of plant and shortage of engineers, reasonable progress was made. The main new irrigation areas under development are Tanjong Karang, Sungei Manik, Kubang Pasu and Besut.

The Tanjong Karang area is situated on the Selangor Coast between the Bernam and Selangor rivers. Progress on the colonisation of this area has exceeded expectations, and to date,

45,000 acres out of a total potential area of 50,000 acres have been taken up. The construction programme is normally planned to keep ahead of colonisation, but in certain parts of Tanjong Karang, colonisation has out-paced construction. The development programme was prepared to open up the area in seven stages and it is expected to complete construction work by the middle of 1951. Work on the Scheme commenced in 1940, and in the stages now fully developed, excellent rice crops have been obtained. For the 1948/49 season, from many lots, yields of over 670 gantangs of padi per acre were harvested (over 1 ton of rice per acre).

The Sungei Manik Area is situated near Teluk Anson in Lower Perak. The development of this area has made steady progress over a number of years and by the middle of this year 20,000 acres out of a potential area of 25,000 acres had been colonised and cultivated. Construction work on the final stage of 5,000 acres has been postponed until the stanniferous value of the area has been ascertained by boring.

The Kubang Pasu Scheme, and the South Perlis Scheme aim at the improvement of irrigation and drainage facilities for 91,000 acres of existing padi fields and the development of 26,000 acres of potential rice land, in North Kedah and South Perlis. The irrigation headworks at Tanjong Pauh, and the headgates on the Alor Changileh canal were completed and good progress was made with the construction of the canals. A large amount of earthwork is involved in this scheme, and the heavy earth-moving plant on this project, comprises five dragline excavators, seven bulldozers and three scrapers.

The object of the Besut Scheme is to irrigate 21,000 acres of existing padi land and to develop 6,000 acres of potential land on the Kelantan-Trengganu border. Construction work has been started on the upper river barrage on the Sungei Angga, but owing to shortage of plant and staff, and difficulty of access, progress was slow.

In 1939 the Agricultural Department reported that along the West Coast of Malaya extensive areas of coconut small-holdings were steadily going out of cultivation because of bad drainage and inundation by sea-water. Since 1939 conditions have deteriorated further and over an extensive area coconut trees are dying and yielding no fruits at all, thus depriving the kampong people, in densely populated localities, of their main source of livelihood. Along the flat coastal plain, efficient drainage is a *sine qua non* of successful agriculture. What is now required is a comprehensive scheme for the rectification of internal drainage and for the prevention of inundation by sea-water, by the construction of coastal bunds which will arrest further deterioration and improve conditions generally.

The long term objective aims at the improvement of drainage facilities on approximately half a million acres of existing kampong land, comprising small-holdings of coconut, arecanuts, rubber and fruit trees.

Construction work in the Senggarang and Sri Menanti Schemes in West Johore covering some 75,000 acres of coconut and kampong lands is progressing satisfactorily and the schemes should be nearing

completion by the end of 1950. In the Durian Sebatang area in Teluk Anson construction work was started during the year in a drainage area of 3,400 acres. Investigations have also been in progress in order to prepare a comprehensive scheme for the West Coast of Johore, from Muar to Pontian. It is expected to make a start in 1950 with construction work on the first stage, between Benut and Senggarang.

The work of improving river channels by the removal of snags, fallen trees, desilting where necessary, and the protection of the river banks from excessive bank erosion was continued throughout the year. Rivers are the main drainage arteries of the country and continuous maintenance work is essential in order to provide adequate drainage for agricultural land. A Suction Cutter Dredger was employed on dredging the lower reaches of the Sungei Bidor in Lower Perak as serious silting up has occurred.

The maintenance and operation of schemes under the control of the Department of Drainage and Irrigation were carried out satisfactorily. As a result of the increased cost of materials and increase of labourers' wages, maintenance costs in drainage and irrigation areas are now three to four times the pre-war costs. In order to meet the increased maintenance costs, the question of increasing existing water rates in gazetted irrigation areas and imposing water rates in new irrigation areas was under consideration at the end of the year. In drainage areas the maximum statutory drainage rate of one dollar and fifty cents per acre per annum was found to be quite inadequate. All States agreed that higher drainage rates were required and in October, 1949, the relevant section of the Drainage Works Enactment was amended by the deletion of the words "not exceeding one dollar and fifty cents per acre per annum". The limit on the drainage rates is now removed and in future it will be left to each State, at its discretion, to impose drainage rates in accordance with its peculiar circumstances.

BUILDINGS.

Maintenance.

For the first time under the new Constitution the maintenance of buildings attached to Federal Departments, was provided for under a vote in the Federal Estimates. An initial setback was, however, encountered when the necessary provision of \$1½ million was arbitrarily reduced to \$1 million so that the programme of maintenance had to be correspondingly and drastically reduced.

New Buildings.

The largest service provided in the Federal Estimates was again the P.W.D. Factory and Stores in Kuala Lumpur, where much progress was made during the year on the foundations and in laying the railway siding, building of water tank and four watchmen's quarters.

Completely overshadowing all the services provided for in the Annual Estimates were the new services required to meet the enormous expansion of the Police Force, additional battalions of the Malay Regiment, and security services directly connected with

the "emergency" situation in Malaya. Special Warrants, totalling approximately \$17 millions, were issued during the course of the year to meet this expenditure.

The largest individual expenditure was at Port Dickson, where \$2,848,467 was voted for Malay Regiment buildings, and at Mentakab in Pahang, where \$2,400,000 were made available to start the construction of a new cantonment for the Malay Regiment there. A supplement of \$4,310,000 was issued for providing accommodation for the expanding Police Force.

In Johore, 14 new Police services were completed and four others were still in hand at the end of the year.

In Kedah, the expenditure on Police buildings was \$296,417.

The largest Federal service in Kelantan necessitated the expenditure of \$575,800 on 21 quarters for Officers, four Warrant Officers' quarters, a Mosque, ration store, M.T. store, magazine store and ancillary buildings for the Malay Regiment. In addition to this construction, a temporary camp was made ready for occupation within 27 days at a cost of \$90,000. The labour force employed in all these building constructions in Kelantan was recruited entirely from the local kampong Malays.

In Malacca, the work of completing "B" block in the General Hospital for use as a T.B. centre was completed. Another important work in Malacca was the conversion of the former Volunteer Headquarters into the Headquarters for the Settlement Police Force.

The programme of Police services, most of which were completed during the year, in Negri Sembilan covered 23 items, ranging in cost from \$84,400 for a new Police Station at Kuala Pilah, down to \$560 for alterations at the Police Station, Tampin. Many other new services for other Federal Departments were also completed in Negri Sembilan.

The allocation to Perak for new Police services amounted to \$624,077, covering new Police Stations, barracks, strong-points, water services and other necessary expenditure. Also, in Perak, the Department constructed three large detention camps. Two of these were at Ipoh to hold 4,000 detainees and one at Taiping for 700 detainees. The cost of these camps was approximately \$715,000. At Taiping, permanent barracks for 32 married Malay Other Ranks were built at a cost of \$141,000.

In Penang, work was started on building 28 permanent married quarters for the Police at Butterworth and a new radio receiving station at Bayan Lepas. Twenty quarters of various classes were also built and extensive reconstruction was done to "Bel Retiro" at Penang Hill.

The building programmes for the armed forces, Malay Regiment and Police in Pahang accounted for the major portion of the Federal funds voted to this State; \$2,304,500 for the Malay Regiment and \$900,000 for the Police. This programme was put in hand and good progress made in spite of acute difficulties.

Much assistance was invoked by the Military on a multiplicity of works services, and in Bentong district alone 29 separate jobs, costing \$80,000, were carried out for them by the Public Works Department.

In Trengganu, the extensive programme of building for the expanded Police Force involved the construction of four new Police Stations, and extensions to many others. Quarters for the O.S.P.C., Kemaman, were well in hand, and a start was made on the Police Workshops at Kuala Trengganu.

Other building services included the extensions of the residence of the Mentri Besar and the English School, and an office for the Private Secretary to H.H. the Sultan, V.H.F. Radio Station, Assistant District Officer's quarters, Cattle Slaughter House, and a Class V quarters.

The dearth of contractors in the State is a great handicap and the few available contractors lack experience. Building prices are approximately double those obtaining in Kuala Lumpur.

At Federal Headquarters of the Public Works Department a great deal of the design and detailed work for building programmes carried out in all the States and Settlements was done with the assistance of the Government Architect's Branch. The extent of this assistance can be gauged from the fact that the staff prepared 845 working drawings and also produced 10,244 prints during the year. The Government Architect's Branch also had in hand the preparation of drawings for works which will proceed in due course from funds provided under the Colonial Development and Welfare Fund. These C.D. and W. Fund projects include the new Technical College, Forest Research Institute, Laboratories for the Institute of Medical Research, Veterinary Research Institute, all in Selangor, and the Fisheries Research Institute in Penang.

Quarters.

The provision of quarters for some specifically "Federal" Departments, especially the uniformed services (Police, Malay Regiment, Customs) was made in the Federal Estimates, and \$4,877,000 was spent in this direction.

With regard to the provision of quarters for "Joint" or "State" Departments, the sum of \$2 millions earmarked in the 1949 Federation of Malaya Loan was allocated to the States and Settlements, to be expended under local control. The allocation was made late in the year and therefore little, if any, progress could be made towards building.

Water Supplies.

As the consequence of floating the 1949 Federation of Malaya \$100 million Loan, the sum of approximately \$12 millions became available for water supplies, for the extension of existing services, and the construction of new ones. The ultimate execution of these works will fall on the State and Settlement Public Works Departments, but most of the initial design and planning is being done by the staff attached to a newly constituted Water Supplies Branch of the Federal P.W.D.

When water supply schemes are developed and the installations are put into operation they are considered as "State" assets, and the revenues flow into State funds. Correspondingly, the annual maintenance charges are met from State funds. The only exceptions

are the small water undertakings which supply the Malay Regiment Camps at Pengkalan Chepa in Kelantan and Port Dickson, together with a few temporary supplies which serve the detention camps erected for the Emergency throughout the Federation. These few supplies remain a Federal responsibility.

Johore.

All piped supplies are now at a very high bacteriological standard and with all services metered, and a careful watch on waste, the water revenues continue to rise. The increase of 46 per cent. in the population over the last 15 years, rules out any ground for complacency and the search for additional sources of supply has gone on throughout the year.

The new 600,000-gallon service reservoir at Kluang was brought into use as well as the 40,000-gallon balancing tank. At Pontian, persistent deterioration of the water after it leaves the treatment plant continues to puzzle the Health and Public Works Departments. Investigations into this phenomenon are continuing.

Kedah.

With the exception of the small pumped supply at Kuala Nerang, no water supply in the State is adequate in either quantity or quality.

Extensions were in hand at Alor Star. The total supply maintained throughout the State amounted to 1,007 million gallons.

Kelantan.

Two new pumps and motors were installed during the year and a new well brought into operation at Kota Bharu where the daily pumped supply has risen to 488,600 gallons. Cost of maintenance was \$36,363 and the revenue was \$39,448.

Pasir Mas is one of the towns to be given its first water supply from the 1949 Loan funds and investigations will start in 1950.

Malacca.

The two small water supplies at Alor Gajah and Jasin were maintained and gave satisfactory service except for two weeks in January when the Alor Gajah supply was severely rationed.

Negri Sembilan.

Following upon the provision of Loan funds to the extent of \$2½ millions, investigations proceeded during the first half of the year for new sources of supply, or augmentation from existing sources. By the end of June it was possible to make a decision as to the merits of several schemes and to post a Waterworks Engineer to Seremban for the design and construction of a combined scheme for Seremban and Port Dickson. Pipe line surveys were made and almost completed by the end of the year. Considerable progress made with the design of a complete purification plant for the supply of 4 million gallons per day to the combined areas.

The old pre-war Military supply to the Mantin area was taken over by Government during the year. Funds for the maintenance of this supply will be asked for in 1951.

The Sungei Menyala augments the water supply to the Malay Regiment and has two pumping sets, each consisting of a 20 H.P. diesel engine coupled to a centrifugal pump. The supply is pumped to storage tanks of 100,000 gallons capacity. This supply commenced full-time working in March, 1949. It is extremely fortunate that the supply was installed, as without it there would be great, if not insuperable, difficulty in meeting the extra demand due to the increase of the Malay Regiment.

Although a sum of \$250,000 has been allotted from Loan account for improvements to Tampin water supply, all investigation has had to be postponed due to the activity of bandits in the area and no survey work can as yet be undertaken.

Pahang.

Good progress was made in the new supply to Raub, practically all structures being completed. With the arrival of pumping machinery, pipes and specials from England, the scheme will proceed to finality in 1950.

The design of the water supply for the new Malay Regiment cantonment at Mentakab was in hand.

Penang.

Due to the drought from January to July the supply to Bukit Mertajam, Prai and Butterworth, Province Wellesley, proved totally inadequate, water being drastically rationed. From July till the end of the year the supply was normal, i.e., Bukit Mertajam and Prai being supplied for 24 hours and Butterworth for 11 hours daily.

The Bukit Panchor supply, Province Wellesley, was adequate throughout the year.

A small piped water supply was installed for the squatter resettlement scheme at Bukit Tambun, Province Wellesley.

The supplies at Penang Hill, Bayan Lepas and Balik Pulau functioned normally.

The supply to Pulau Jerejak proved inadequate for the first seven months of the year, due to the drought, badly choked mains and the heavy demand from the fully occupied detention camp. The choked mains were removed in sections, cleaned and replaced. In March, it was necessary to transport water from Penang Island.

The scheme for the water supply to the rural areas in North Province Wellesley was one of the first to receive the attention of the staff of the Headquarters Water Supplies Branch.

Much preliminary work was done, including surveys of the reservoir site, intake canal, approach roads and designs of rectangular service reservoirs of 3,000,000 gallons capacity each. Many details of the scheme were sufficiently advanced by the end of the year to enable tenders to be invited.

Perak.

The new water schemes for Bidor and Grik, provided under the Loan Account, were revised, and indents for part of the equipment were despatched to the Crown Agents during the year.

The State maintains 22 separate water supplies with an output of 13,900,000 gallons per day.

The general standard of treatment on all supplies was maintained and bacteriological and chemical tests were regularly made. Generally the quality of the water supply to the public was very high. Most of the large supplies are quite old and inadequate, and need major improvements and extensions.

The Kuala Kangsar water supply, which at the beginning of the year had to be considerably restricted, was increased by 30 per cent. or over 100,000 gallons per day by the expenditure.

The Kuala Kangsar water supply, which at the beginning of the year had to be considerably restricted, was increased by 30 per cent. or over 100,000 gallons per day by the expenditure of only \$20,000 and this town now enjoys an unrestricted supply. In the Krian area extensive waste detection tests were made. Faults in the mains were traced including one leak as high as 1,000 gallons per hour.

Investigations for the improvement of the Taiping water supply were put in hand and a scheme was prepared for a new sedimentation tank, rapid filters and a service reservoir. Tenders for the first part of the scheme—a 600,000-gallon settling tank—were invited and a contract let in October.

Orders were placed for a new engine for the Parit water supply and two electric motors and pumps for the Sitiawan water supply.

Selangor.

Work in respect of Kuala Lumpur water supply continued during the year on the investigations at the proposed Klang Gates dam site, but owing to lack of suitable equipment it was not completed by the end of December.

The Subang reservoir was for the first time filled to spill level during the latter part of the year. It is now estimated to provide a safe draw-off of $3\frac{1}{2}$ million gallons per day. With the submergence of so much vegetation the quality of the water has deteriorated seriously.

Design is in hand for a filtration plant of 3,000 gallons per minute capacity.

Tenders have been called for the new main to Klang and for part of the Klang reticulation.

A contract was let for the one million-gallon circular reservoir with domed roof at Cemetery Hill, Klang, in September. Work was progressing at the end of the year. The design of the 2 million-gallon reservoir at Subang was practically complete.

The main to Port Swettenham was completed in 1948, except for the new booster pump and the connection to the Cemetery Hill reservoir. The booster pumps were received towards the end of 1949.

The whole improvement scheme is expected to be completed in 1953, but it is hoped to supply purified water at the end of 1951.

The 13 existing supplies in Selangor were maintained in good order throughout the year, in most cases with adequate capacity.

At Kajang the raw water main was damaged beyond immediate repair by bandits on 23rd August and an emergency scheme,

involving pumping from the same river (Sungei Jeloh) just outside Kajang Town, was installed within four days.

The emergency supply has been converted to a permanent auxiliary supply by the installation of a pump-house and electric pumps. Treatment, however, is still required and, as soon as funds permit, arrangements must be made either to erect a purification plant, or to go elsewhere for water.

Trengganu.

Funds were allotted from the Federation Loan for the provision of piped water to the town of Kuala Trengganu—for the first time in its history.

Lack of staff permitted only preliminary investigations being carried out after the funds were voted, but this scheme will have the attention of the Headquarters Water Supplies Branch at the earliest possible moment.

Sewerage.

The P.W.D. Engineer responsible for the design and planning of the proposed sewerage and sewage disposal scheme for Kuala Lumpur was on leave in the United Kingdom for part of the year. He took the opportunity to discuss the scheme with the Engineers of the Crown Agents, who introduced him to Consulting Engineers specialising in sewage disposal. The responsibility for this project now lies with the Municipal Commissioners of Kuala Lumpur and it is expected that Consulting Engineers will visit Malaya in 1950 and report on the installation proposed by the engineer of the Public Works Department.

The policy of development of local government in other large towns has doubtless promoted ideas of water-borne sewage schemes in the minds of the potential "city fathers". The problem of staff to design and execute the work, and the ways and means of paying for it have yet to be investigated.

Airfields.

Maintenance and construction of airfields used under the control of the Department of Civil Aviation continued to be a function of the Public Works Department.

Johore.

The grass airstrip at Kluang was maintained in good condition throughout the year. Late in the year, funds became available for some much needed sub-soil drainage and for dressing the surface with manure.

Emergency strips were maintained for the Army at Segamat and Muar, and the Senior Executive Engineer, Kluang, was also flown to Kampong Aur airstrip in Pahang to advise the Police on a matter of difficulty with the strip constructed by them at that place.

Kedah.

Kepala Batas main runway at Alor Star was extended to 1,500 yards. The original runway has little or no block metal foundation and requires constant patching owing to the difficulty in draining the site. Malayan Airways are starting a service on 1st January, 1950, which will call here on the Penang-Kota Bahru route.

Kelantan.

A sum of \$14,500 was provided for the maintenance of the two operative airfields in Kelantan—one at Pengkalan Chepa which is the main civil airport, and the other at Gong Kedak, which is more in the nature of an emergency ground although of permanent construction.

There was only one occasion during the year on which a civil plane could not land at Pengkalan Chepa.

A water-borne sewage system has been added to the sanitary arrangements at Pengkalan Chepa—a considerable improvement and convenience to passengers and staff. A new garage for Civil Aviation Department transport has also been constructed.

The construction of a new control tower can be considered an early priority as the existing wooden shack has served its purpose well and is due for retirement.

Malacca.

The Batu Berendam airstrip was maintained by the Department, work consisting of grass cutting and filling surface holes as well as drainage work.

Negri Sembilan.

There are no civil airfields in this State.

Pahang.

The grass runway at Kuantan was extended to 2,000 yards length, and $7\frac{1}{4}$ miles of underground drainage was laid. All sub-soil pipes had to be transported over 250 miles from Kuala Lumpur, and the proportion of breakages was only 1 in 1,000—a very remarkable achievement.

The Benta airstrip came in for fairly frequent use, and the Public Works Department made and maintained three other Auster strips at Bentong, Gua Musang and Mentakab. Another Auster strip was in the process of construction by Military forces at Jerantut.

Penang.

The extension at the south end of the Bayan Lepas airfield was completed and brought into use. Very extensive repairs, including block foundations, remetalling and seal-coating of other parts of the runway and the taxi tracks and aprons were carried out. Total expenditure from the maintenance provision was \$44,985.

Perak.

The metalling and asphaltting of the runway at Ipoh started in 1948, was completed during the year and in addition a taxi strip in front of the Administration Block was extended and improved. Five Class IX quarters were erected at the aerodrome for Traffic Clerks, Radio Operators and Meteorological Observers. A crash tender garage was also constructed.

Four subsidences occurred on the aerodrome runway due to the leaching effect of acid water on the limestone under the aerodrome and this gave rise to some concern. However, a complete test of the runway with loads specified by the Director of Civil Aviation was carried out and only one other weak spot discovered, which

was due to poor construction during the Japanese occupation. As subsidences of this nature are common in limestone country, it has been decided to test the runway approximately every six months.

Sitiawan airfield was satisfactorily maintained as a grass landing ground.

Taiping airfield was maintained in serviceable condition and was much used by the armed forces in addition to the normal traffic of Malayan Airways. The boggy section near the northern end is now no longer boggy since bore-hole drains were put in. These drains consist of an auger bore through the clay which overlies the sandy sub-soil, the holes being filled with sand, thus allowing the drainage to pass through the impervious clay layer. A terminal building and control tower were erected from materials salvaged from old Japanese structures and, in addition, a new double garage for the crash tenders was built.

Selangor.

Two airfields, Kuala Lumpur and Klang, were maintained. An attempt to surface the Kuala Lumpur strip with premix bitumen was not successful chiefly due to lack of mixing and quarry plant. Despite extraordinary traffic due to R.A.F. anti-bandit operations the runway was kept uninterruptedly in use.

Klang airfield is only used for emergency landings and a runway 800 yards \times 65 yards was extensively patched and seal-coated.

Trengganu.

Good progress was made on the emergency grass runway which is being built to "Dakota standard" to the north of Kuala Trengganu. Funds were made available for the earthwork and construction of a light approach road, but the work had to stop at the break of the monsoon as the approach track was breached in two places by floods and the transport of airfield equipment could not then be undertaken.

CHAPTER XII.

COMMUNICATIONS.

Roads.

The public road system of the Federation covers 6,060 miles of roads classified as follows :

Class.	Mileage.
A 1. Concrete surface	20
2. Metalled surface grouted or sealed with bitumen	3,917
B Metalled surface waterbound	337
C Hard surface bitumen sealed	212
D Hard surface waterbound	849
E Earth surface	725
Total ..	6,060

The "Federal" element of this total is 2,120 miles and the greatest individual expenditure on maintenance therefore falls on the Federal purse.

All new roads constructed during the year were associated with the "emergency" and were needed to improve the access to "bad" areas and facilitate the movement of security forces.

Johore.

The effect of the Emergency was to restrict work on certain minor roads to some extent but, due to the loyalty of the road labour forces and the Asian supervisory staff, there were no serious repercussions. Arrests by the Police of men engaged in Gunong Ledang, Cha'ah and Jemaluang quarries caused some interruption in metal supplies. A major effect of unsettled conditions on the roads was the diversion of traffic from the Ayer Hitam-Yong Peng-Segamat and the Yong Peng-Muar routes on to the Ayer Hitam-Batu Pahat-Muar route. The latter road traverses swamp country for most of its length and excessive maintenance has become necessary as a result of its use by fast and heavy traffic which it was not designed to carry.

During the year all timber lorries were governed to a speed of approximately 25 miles per hour. In general, this experiment has been a success and it would be a major measure of financial economy if the speeds of *all* heavy vehicles could be similarly governed.

Work was started on two reinforced concrete bridges of 80 feet and 40 feet span on the main road, and during the year 18 permanent culverts, ranging from two feet diameter pipes to double-box of 10 feet spans, were constructed in the State.

Kelantan.

An unusually heavy programme of road construction and improvements was undertaken against the following Federal items :

- (a) Improvement to East Coast Road.
- (b) Reconditioning of Timber Bridges.
- (c) Reconditioning of Roads and Bridges.
- (d) Tanah Merah/Nibong Road.
- (e) Nibong/Jeli Road.

(i) Under (a), $1\frac{1}{4}$ miles of road were blocked and blinded ; there still remains one mile to complete the whole length from Kota Bharu to the Trengganu boundary.

(ii) One hundred and twelve lineal feet of bridges were reconstructed under item (b) above. Of the programme planned for the year, however, the reconstruction of the bridge over the Sungei Yong remained incomplete at the end of the year ; the abutments were complete and steelwork fabricated for this 90 feet span, but erection was still to be done.

(iii) Little expenditure was made on item (c) above owing to the late arrival from the United Kingdom of the steelwork for the Sungei Nal suspension bridge. However, as soon as the possibility of monsoon flooding lessens work will go ahead in 1950. It will be noted that the order for the steel was placed in 1946, with arrival late in 1949.

(iv) Funds for the earth roads in items (d) and (e) were provided in the months of June and July respectively and should strictly be included under the heading of "Emergency Works" as the two roads concerned are being brought up to fair-weather 3-ton lorry standard for strategic reasons.

(v) Work on the 19 miles from Tanah Merah to Nibong is now 90 per cent. complete, while work on the Nibong-Jeli stretch (12.6 miles) has advanced to 80 per cent. jungle clearing completed and 30 per cent. of the formation. No mechanical earth-moving equipment was available, but a large labour force of 600 men was employed from the local Malay population.

The resurfacing of the Kota Bharu-Pengkalan Chepa Road was completed during the year. This asphalted road is the link between Kota Bharu and the airfield. It also serves the Military Camp and, in the near future, the new detention camp and Prison. A widening scheme for this important road will be necessary early owing to the growing intensity of traffic.

Work was started on a new ferry over the Kelantan River at Pasir Mas, a very necessary and valuable link in the State road system.

Kedah.

A very considerable amount of bridge construction to replace those bridges blown up in 1941 remains to be done. This includes the Muda River bridge and the Alor Star bridge, both major works, together with a number of smaller ones, mainly on Federal Route I. Two reinforced concrete bridges on the main road were in course of construction at the end of the year at Sungei Lallang and Jitra. The contract for the reconstruction of the Merbau-Pulas bridge was started in December. Extensive repairs were necessary to the many timber bridges, particularly in Alor Star, where "teredo" has attacked the piles.

Malacca.

Of the 41 miles of Federal roads, some $4\frac{3}{4}$ miles were remetalled, grouted and sealed. The full programme of work could not be completed owing to shortage of road metal and chippings.

Negri Sembilan.

The length of Federal roads maintained was $183\frac{3}{4}$ miles, of which 16 miles was remetalled and sealed with bitumen.

As in many other States, a large emergency programme of cutting back the roadside blukar and jungle had to be carried out to reduce the "cover" available to bandits in their ambush activities. One unexpected consequence of this extra clearing is the additional number of earth slips, especially on road cuttings.

Pahang.

In this State over 71 per cent. of the road mileage is "Federal" and an expenditure of \$1,623,138 was incurred on maintenance from Federal funds.



Constructing a new pipeline between Klang and Port Swettenham.



A 'Palong' in a typical Chinese tin mine.

Progress in remetalling suffered restriction owing to the necessary careful control over the movement and use of quarrying explosives, and the need for Police supervision.

Heavy military type vehicles and other fast anti-bandit traffic caused some destruction to the haunches and side-tables of these narrow roads, and maintenance gangs have the greatest difficulty in keeping pace with this rapid deterioration.

Two road workmen were killed in bandit ambushes, and one Overseer and seven other workmen were wounded. Generally, the greatest determination and loyalty was displayed by all labour forces, who deserve the highest praise for "carrying on".

Penang.

Of the 79½ miles of Federal roads and 280½ miles of Settlement roads, a total of 45 miles were remetalled, grouted and sealed with bitumen.

Whilst there still remain arrears of roadwork in Province Wellesley, the position shows considerable improvement.

Road metal prices on Penang Island are still very high compared with those on the mainland. This position should be rectified when the P.W.D. crusher comes into operation in 1950.

In Penang one timber bridge and three permanent bridges were reconstructed.

One new 40 feet span R.C. beam and slab bridge was under construction in the Waterfall Gardens, Penang. The cost of this bridge is being met from a gift by the Honourable Mr. Ng Sui Cam, Settlement Councillor, Penang.

Perak.

The expenditure on the 1,118 miles of roads in this State was approximately \$3.9 millions, over one-fourth of which was from Federal funds.

The condition of Route I through Krian is now giving rise to much concern. After the floods in October there was a very rapid deterioration of this length of road. Most of the road has no block metal foundations and with the continual overloading and speeding of lorries, coupled with the high water tables always found in these rice growing areas, the rate of deterioration has increased.

The Slim-Tanjong Malim section of the main trunk road presents a special problem. Over 70 accidents have occurred in this section of the road due to the narrow and winding nature of the road and the very narrow side-tables.

The two end spans of a reinforced concrete bridge, No. 57/1, on Route I at Kampong Dew which were demolished during the Malayan campaign, were reconstructed.

Plans were drawn up for the raising of the demolished spans of the Sungei Gedong bridge in Krian and tenders which were invited for carrying out this work were accepted after additional Federal funds had been voted towards the end of the year. With provision available during the year, a floating Bailey bridge was erected for use during the period of reconstruction of the main bridge and, in addition, in order to obtain data for the contract for raising the

main span, the short northern approach span was raised as far as it was possible to do so without interfering with the temporary Bailey bridge erected on top of the sunken spans.

Two demolished spans of steel bridge No. 20/1 on Route I near Kuala Dipang have also been reconstructed in reinforced concrete.

The reconstruction of the bridge over the Sungei Kinta in Hugh Low Street, Ipoh, which was started in 1948, was successfully completed.

As stated earlier, the Department was engaged in improving and constructing roads for "security" reasons. In Perak this work included :

(a) Redang Panjang-Kubu Gajah Road.

(Ijok-Selama Area).

This project involved the completion of work on an old trace, and the provision of $5\frac{1}{2}$ miles of gravelled roads and necessary bridge work. The work by the end of the year was substantially completed, making a useful link between the Ijok and Selama roads. The work left to be completed was the erection of three bridges with materials of the Japanese Bailey type.

(b) *Grik-Klian Intan Road.*

Funds were voted for the general improvement of what was a poor earth road. The work consists of improvements to the alignment, widening formation, gravelling, block metalling soft spots and a considerable volume of bridge and culvert work. Progress was not good during the year owing to the lack of technical staff, plant and labour, and only 22 per cent. of the work was completed. All arrangements have now been made to speed up and complete this work.

(c) During the year this Department took over the Huntly Estate earth road, 3 miles 77 chains long, which runs through the new Pantai Remis Squatter Resettlement area. The labour for maintaining this road is obtained from the local Chinese.

Perlis.

The Federal mileage in Perlis is 9.15 and the State mileage 76.5, on which the maintenance expenditure was \$167,000.

Money was provided late in the year for a new "security" road from Kaki Bukit to Padang Besar, and the survey work and jungle clearing is proceeding.

Selangor.

Excluding the roads administered by the Kuala Lumpur Municipality there are 713 miles of Federal and State roads in Selangor.

Drainage work on the Gap Road carried out in 1948 paid rewards in the absence of slips, but the heavy rains in October to December resulted in a greater number of slips on the main trunk road north. The Selangor-Pahang Road, via Ginting Simpah, shows signs of serious deterioration and unless major work on the road is carried

out, the closing of the road for long periods is inevitable. The whole road is badly aligned and badly drained. In many places it threatens to fall into the ravine below.

No replacement of major bridges destroyed by demolitions during the Malayan campaign was made. Little progress on Klang Bridge investigation was possible owing to lack of suitable equipment and staff. The two pontoon bridges were cleaned, painted and patched. It is hoped that the steady deterioration of these pontoons will be eliminated by uniting them with a cement-sand mixture. One string was so treated as an experiment and results are very promising. The Puchong bridge (for a mine deviation) was completed, and two bridges to replace timber bridges on the Ulu Langat Road were under construction at the end of the year.

Trengganu.

The village-to-village track developed during the Japanese occupation period and which has had improvements effected to it in recent years, has become more or less accepted as the "East Coast Road". Much discussion at the highest State level centred upon it during the year. It was decided that, in view of :

- (a) the lack of any comprehensive information and records regarding the inland trace,
- (b) the length of time it would take to collect data which would be of any value, and,
- (c) existing doubts as to the inland road ever becoming an economic proposition,

it would be better to utilise such funds as become available for improving the standard of the present Coast Road.

A major improvement, involving the construction of new approach roads and ferry ramps at Kemaman, was in hand at the end of the year. The new approach on the Kuantan side involves the construction of about a mile of new road through a nipah swamp and the earthwork for this was almost completed by the end of the year.

The programme of reconstruction of bridges on the main road was continued during the year and there are now few bridges south of Kuala Trengganu which are not in sound condition. The biggest reconstruction job was that of the Kuala Ibai bridge, 480 feet in length, which was started last year and which was reopened to traffic by His Highness the Sultan at the beginning of March. The total number of bridges reconstructed on Federal roads was nine having a total length of 680 feet, at a cost of \$68,612, including \$35,522 spent in 1949 on Kuala Ibai bridge.

The ferries were maintained satisfactorily throughout the year, but a certain amount of trouble was experienced with the Morris Commodore engines on the launches. Both ramps at Marang Ferry were reconstructed, a concrete slab being provided on the north side.

The State roads were maintained in a reasonable condition during the year. The Jerangau Road, work on which had been temporarily abandoned owing to the Emergency, had got into a very unsatisfactory state and in order to assist the work of the

Police in this bandit infested area, special gangs (contract and departmental) were engaged to carry out necessary clearing and filling up of ruts and potholes.

Road Transport.

During 1949 the number of mechanically-propelled vehicles registered throughout the Federation continued to increase, the total increase of vehicles of all classes being 1,547 over the figure for 1948. The present registered total of 43,882 vehicles includes 7,568 motor-cycles, 20,837 cars, 1,424 buses, 1,312 hackney carriages and 11,890 goods vehicles. Government-owned vehicles number 5,552.

The registered total also includes vehicles which are derelicts or broken up and not licensed and vehicles not used on public roads and therefore not licensed. When a motor vehicle is once registered it remains so until the Registrar and Inspector of Motor Vehicles is satisfied that it has been either broken up or exported from Malaya. There is no obligation under the present law to declare that a motor vehicle is not in use, but such a requirement will be included in the new draft Road Traffic Bill.

In order to obtain a more accurate picture of the present position instructions were issued to Registrars and Inspectors of Motor Vehicles that all motor vehicles which had not been licensed since 30th June, 1947, should be regarded as "dead" vehicles and deleted from the registration statistics. This was completed in September, 1949, and had the effect of removing 3,804 vehicles from the total of vehicles registered. In August, 1949, the total was 46,545; in September after the deletion of the "dead" vehicles the total was 42,741.

Bus Services now operate over 6,685 miles of road which comprise all major and most of the minor roads in the country. With the coming into effect of the Motor Vehicles (Construction and Use) Regulations, 1948, and the availability of proper bus chassis, bus design, passenger comfort and safety have greatly improved. A further 265 buses including 42 diesel vehicles were put into operation during the year.

It is calculated that over 120 million passengers were carried during the year at fares which ranged from 4 cents per mile to 6 cents per mile. The highest fares are authorised on certain town services or where rough roads have to be traversed in newly developed areas. With effect from 1st May, 1949, the basic fare rate was raised from 3 cents per mile to 4 cents per mile.

There was 1,188 goods vehicles operating as public carriers, 745 as limited carriers, and 5,009 as private carriers. All commercial vehicles were periodically examined by officers of the Road Transport Department in the interests of safety. Over 9,700 commercial vehicles were so examined during the year.

The total revenue collected by the Road Transport Department from the registration and licensing of mechanically-propelled vehicles and from driving licences amounted to \$9,339,325 for the year.

There has been little change in the governing legislation. At the close of the year it was intimated that the bill to regulate roads and road traffic would be introduced by Government in the early part of 1950. Consequent on a decision in a Magistrate's Court which declared certain regulations *ultra vires* it was thought advisable to amend the Proclamation so as to prevent a build up of prosecutions until it was possible to have the decision tested on appeal. This was done by Ordinance No. 21 of 1949. The decision on appeal reversed the finding of the Court of first instance.

Control over the export of motor vehicles was retained throughout the year.

Petrol rationing was continued throughout the year. On 1st July, 1949, the price of petrol was reduced from \$1.45 per gallon to \$1.40 per gallon and on 1st November, 1949, it was increased to \$1.52 per gallon.

Railways—General.

The Malayan Railway, formerly the Federated Malay States Railways is owned and operated by the Federal Government. The main line runs from Singapore in the south to Prai in the north opposite Penang Island. A branch line runs from Bukit Mertajam ($6\frac{1}{2}$ miles south of Prai) to Padang Besar on the Thai border where connection is made with the State Railways of Thailand. Other branch lines connect the main line to ports at Port Dickson, Port Swettenham, Teluk Anson and Port Weld. The East Coast Line which ran from Gemas to Tumpat in Kelantan and established a second connection with the Thai Railways at Sungei Golok was partly dismantled by the Japanese and 200 miles of rails and undamaged bridge spans between Mentakab and Krai were removed.

Financial Results.

Gross Revenue	.. .. .	\$37,994,130
Gross Expenditure	.. .. .	33,735,444
		<hr/>
		\$ 4,258,686
Less Depreciation of Investments	.. .. .	1,060,128
		<hr/>
Balance to Railway's Renewals Fund against the assessed contribution of \$5,028,700	.. .. .	\$ 3,198,558
		<hr/>

Special Expenditure on Reconstruction and Rehabilitation during 1949 was \$17,250,412 of which an amount of \$9,065,126 was met from the Railway's Renewals Fund, a further \$1,100,000 from other Railway Funds and the balance of \$7,085,286 from the Federation of Malaya \$100 million Loan, 1949 and Federal Funds.

Effect of the Emergency on the Train Service.

The Railway was attacked by terrorists on 49 occasions. The track was damaged 21 times by removal of rails or by explosives or obstruction. In 12 cases there was interference with the Railway's signals and telecommunications. A patrol train and the night mail train following it were derailed on one occasion,

mixed trains twice, and armoured trains on four occasions, whilst trains were fired upon on five other occasions. Two wayside stations, three staff quarters and four passenger coaches were destroyed.

Two passengers were killed and seven injured. Two Railway officers and two other employees were killed.

The protective measures adopted in 1948 for night mail trains were continued throughout 1949. Trains on the East Coast Line were run at reduced speeds and Police escorts were provided.

One additional lightly armoured train was placed at the disposal of the Security Forces making four in all.

The necessary restriction of goods train services during the night was a severe handicap.

The cost to the Railway of security measures and of making good the damage done was substantial.

Operating Results.

Comparative results of working are given below :

Item.	Unit.	1949.	1948.	1939.
Route miles open to traffic ..	Miles ..	870..	860 ..	1,068
Passenger train mileage ..	Thousand Miles ..	1,352..	1,184..	3,284
Passenger journeys ..	Thousand ..	4,442..	3,820..	11,463
Average receipt per passenger journey (ordinary) ..	\$..	1.97..	2.40 ..	.38
Goods train mileage ..	Thousand Miles ..	1,784..	1,683 ..	1,426
Paying goods tonnage ..	Thousand Tons ..	1,760 ..	1,589 ..	1,867
Paying goods ton mileage ..	Thousand Ton-miles ..	198,722 ..	193,424 ..	160,047
Port Swettenham, Imports ..	Tons ..	342,100 ..	343,674 ..	384,590
(Railway Wharves) Exports ..	Tons ..	271,035 ..	255,731 ..	152,568
	Total	613,135 ..	599,405 ..	537,158
Prai, Imports ..	Tons ..	198,255 ..	210,553 ..	109,485
Exports ..	Tons ..	156,948 ..	150,693 ..	126,084
	Total	355,203 ..	361,246 ..	235,569

Operating Costs.

(a) Staff.—Staff costs in 1949 totalled \$20,137,590 or 60 per cent. of the Railway operating expenditure. This staff expenditure was nearly three times that of 1939.

(b) Stores.—The cost of stores still showed no signs of declining and remained up to three times the pre-war cost.

The price of local coal supplies remained at \$20.50 per ton at pithead throughout the year or approximately four times the pre-war cost.

The prices of local sleepers remained high during the year with average prices at \$8 for primary and \$7.25 for secondary hardwoods compared with pre-war rates of \$2.30 and \$2 respectively.

Freight Rates and Passenger Fares.

During 1949 there was no change in the standard freight rates and fares, but in some areas to meet road competition it became necessary to offer reduced passenger fares for local services and reduced freight rates for commodities falling in the higher classes of the goods classification.

Additional rail-served godowns having a total area of 51,800 square feet were erected during the year.

The Permanent Way.

An output of approximately half a million sleepers was achieved from the open tank creosoting plant at Gemas. Arrears in the renewals of sleepers were substantially overcome thereby making it possible to increase the maximum permissible speed to 40 m.p.h. over the major portion of the main line.

The re-conditioning of signalling and rehabilitation and restoration of Railway telecommunications was continued but progress was still impeded by delays in delivery of materials from the United Kingdom.

Locomotives.

The number of locomotives in service and under repair at the end of the year was :

Main Line	..	..	..	..	..	..	152
Shunting	..	..	..	..	..	..	36

The last three of the 20 new diesel electric shunting locomotives received from the United Kingdom were placed in service during the year. A further eight ex-Military steam locomotives were sold to the Tanganyika Railway.

At the Sentul workshops, 84 heavy and 88 light repairs to locomotives were undertaken. At the end of the year 18 heavily damaged locomotives were still in storage awaiting major repairs and the delivery of spare parts from the United Kingdom.

Coaching Stock.

The stock at the end of the year was as follows :

In traffic	..	..	..	..	..	..	265
Awaiting repairs, etc.	..	..	..	..	..	..	21
							<hr/> 286 <hr/>

Ninety-nine heavy and 39 minor repairs to coaches were carried out at the Workshops during the year. Amongst the rehabilitated coaches turned out were a further two air-conditioned buffet cars making a total of three of this type of car now in service.

Wagons.

The stock of wagons at the end of the year was :

Four-wheeled vehicles	..	..	..	..	3,817
Bogie vehicles	..	..	..	..	1,635

During the year 1,482 wagons were repaired at the Workshops, 83 bogie and 89 four-wheeled wagons received from the United Kingdom were erected and placed in service. Three hundred and fifty-five ex-War Department wagons having plywood sides and roofs were rebuilt.

Staff.

(a) Establishment.

The number of Railway employees at the end of the year was as follows :

Europeans	..	..	..	..	..	..	103
Eurasians	..	..	..	..	..	..	250
Indians and Ceylonese			..	..	..	..	8,851
Chinese	..	..	..	..	..	..	1,306
Malays	..	..	..	..	..	..	3,732
Others	..	..	..	..	..	..	221
							<hr/> 14,463 <hr/>

Of these 3,528 were employed on monthly salaries and 10,935 on daily rates of pay.

(b) Trade Unions.—Six Railway Trade Unions representing employees continued to operate under the Trade Unions Ordinance of 1946.

(c) Machinery of Negotiation.—An agreement was signed on the 28th January, 1949, between the All-Malayan Railway Workers' Union and the Railway Administration establishing Whitley Council Machinery of Negotiation. Later in the year the Signalmen's Union became a party to the same agreement.

To facilitate negotiation on a district level the Malayan Railway system was divided into eight geographical areas for each of which a Committee was established after nominations had been invited from the staff side. Elections were carried out by secret ballot. The interest of the staff was indicated by the fact that 53 per cent. of the voting papers issued were returned. These District Staff Committees will commence to function early in 1950.

(d) Housing.—One hundred and seventy-eight staff quarters and fourteen rest rooms for locomotive firemen were built during the year.

Thirty-two units of staff quarters which were surplus to requirements at certain stations were removed and re-erected elsewhere.

(e) Welfare.—One new staff canteen was opened near the Sungei Aur Wharf, Port Swettenham, and 15 staff canteens remained in operation at the close of the year.

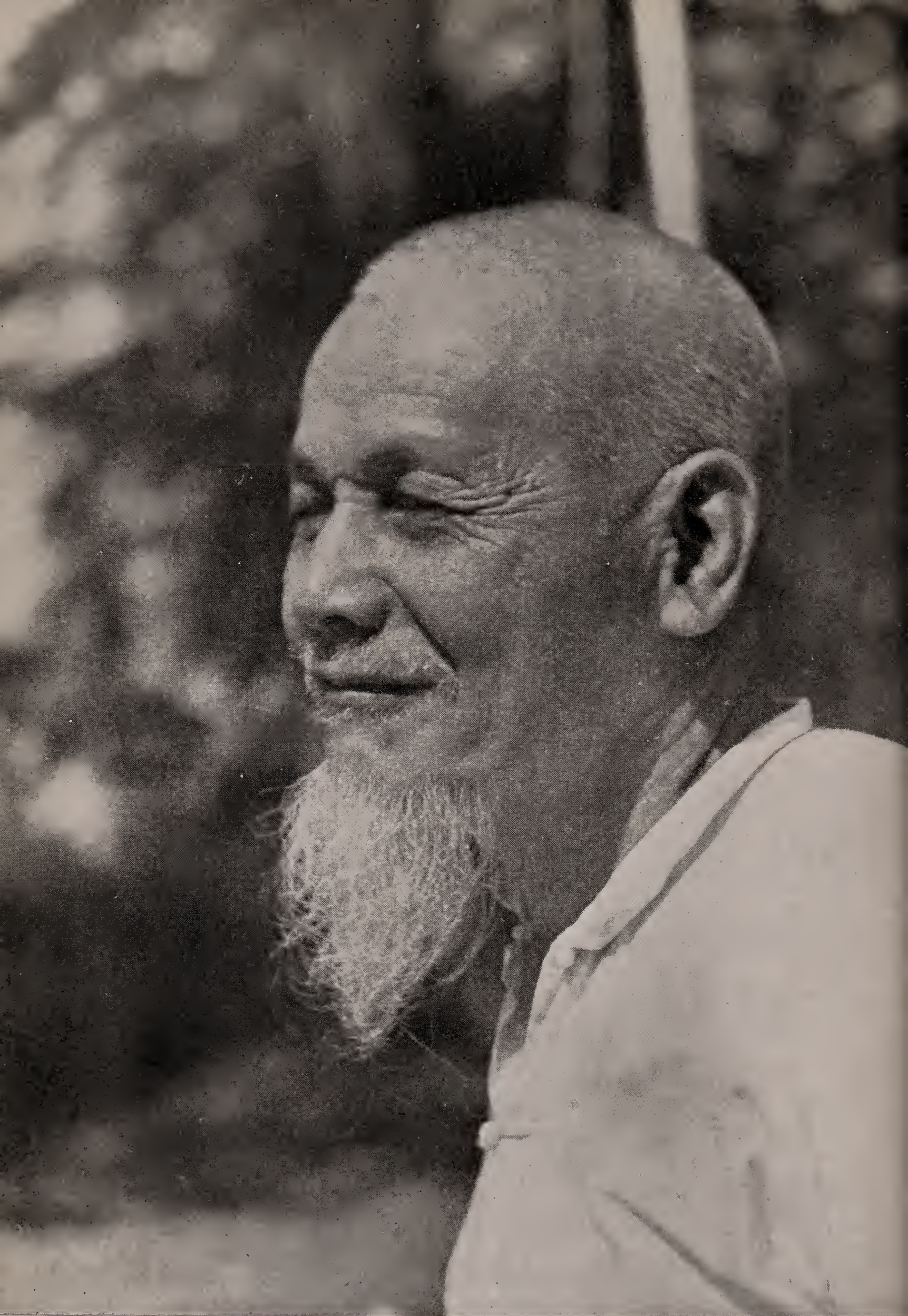
Twenty Railway Institutes functioned throughout the year, the Railway providing club buildings and sports grounds.

Reconstruction.

(a) East Coast Line.—Relaying of the East Coast line north of Jerantut has been suspended because of terrorist activities.



**A Malay fisherman on the
East Coast.**



A Chinese Buddhist monk at
Kuala Lumpur.

In Kelantan good progress has, however, been made. A large bridge over the Lebir River was brought into use on the 18th November, 1949, and by the end of the year relaying had been completed to Kuala Gris, 29 miles south of Krai.

(b) Workshops.—At Sentul Works further substantial progress was made in clearing wreckage and debris and by the end of the year the reconstruction or replacement of many of the workshops destroyed by Allied bombing in 1945 was completed particularly that of the wagon repair and painting workshops having an area of 40,800 sq. ft. Reconstruction of the Kuala Lumpur Locomotive and Carriage Sheds which had been partially destroyed by bombing during the war proceeded satisfactorily and it is expected that the work will be completed early in 1950.

(c) Ports.—The reconstruction of the coastal wharf at Port Swettenham was completed and its full length of 600 feet brought into use during November, 1949. This provided much needed additional wharf accommodation with direct rail access.

It was necessary to undertake extensive remedial measures at the ocean wharf.

The reports of the Consulting Engineers on the silting problem at Prai and on the proposals for the construction of additional wharves in the North Klang Straits were received towards the end of the year.

MARINE.

Shipping.

The total number and tonnage of ships that entered and cleared at Federation ports were as follows :

	No. of vessels.	Tons.
Penang	3,415 ..	9,598,956
Port Swettenham	2,009 ..	6,669,155
Malacca	225 ..	100,632
	<hr/> 5,649 ..	<hr/> 16,368,743

Country Craft.

The total number of country craft that entered and cleared at the Federation ports was as follows :

	No. of craft. ..	Tons.
Penang	7,431 ..	398,750
Port Swettenham	10,208 ..	116,350
Malacca	2,813 ..	50,631
	<hr/> 20,452 ..	<hr/> 565,731

Navigational Aids.

Navigational aids around the Federation coast have been maintained in a state of efficiency.

Complete new electrical lighthouse mechanism was installed in Pulo Angsa Light House, in North Klang Strait during the early part of 1949. Mariners have reported that this light has been visible at a distance of 30 miles on a clear night. The new Light Ship for Angsa Bank was placed on station in February, 1949.

With the installation of these two important up to date aids mariners now have little difficulty in making the north approach to Klang Strait.

Dredging.

The Dredging Unit attached to the Marine Department dredged alongside the Coastal Wharf, Port Swettenham, to a depth of 18 feet and after annual overhaul proceeded to Malacca for the purpose of dredging the entrance to Malacca river which has silted badly during the occupation period. This latter operation presented many difficulties as the craft available is unsuited to conditions at Malacca. A new grab dredger which arrived in Malaya in sections and will be in commission during the first quarter of 1950 will be based in Malacca on completion until weather conditions permit the craft to proceed to Kuantan on the East Coast.

POSTS.

During 1949 there was a decrease in foreign traffic due mainly to the restriction of services to China. Postal articles of all classes posted and delivered during the year totalled 100,561,405. Cash transactions at Post Offices increased slightly from \$347,459,868 in 1948 to \$349,681,846 in 1949. The number of permanent staff of all grades employed was 1,863.

On the 9th August an Agreement was signed providing for the constitution of a Postal Union consisting of the Federation of Malaya and the Colony of Singapore. Under the Agreement these territories are administered as a single Postal area by the Postmaster-General, Malaya, assisted by an Advisory Board.

At the end of the year 186 Post Offices and 114 Postal Agencies were in operation. In order to provide postal facilities at places distant from a Post Office, licences to sell stamps were issued, and roadside posting boxes were maintained. Public posting boxes in the Federation numbered 563 at the end of the year. Two hundred and fifty-five private persons are licensed to sell stamps.

Pre-war Straits Settlements stamps overprinted "B.M.A." continued to be used throughout the year, but ceased to be sold in the following States and Settlements, when the new stamps and postal stationery were introduced on the dates shown :

Penang—21st February;

Malacca—1st March;

Negri Sembilan—1st April (Postal stationery issued on 1st June);

Johore—2nd May (Postal stationery not yet issued);

Selangor—12th September;

Trengganu—27th December.

A special issue of stamps to commemorate the 75th anniversary of the Universal Postal Union was made on the 10th October, 1949. The denominations were 10 cents, 15 cents, 25 cents and 50 cents.

All the internal services of Malayan Airways, Limited were utilized throughout the year. On 1st July, an "All-Up" service was introduced, whereby all correspondence prepaid at the letter rate of postage was afforded conveyance by air, whenever acceleration could be achieved thereby. From 22nd August, second-class correspondence, addressed to places within the

Federation and Singapore, has been accepted for conveyance by air, on payment of an air mail fee of 3 cents per 2 oz. or part thereof, in addition to the ordinary internal rates. As previously, the internal air mail service was used for the transmission of overseas air mail correspondence in both directions. Air mail despatches to the United Kingdom were increased to five per week, and despatches from the United Kingdom were scheduled to arrive six times a week; the average transit time between Singapore and the United Kingdom was just under four days.

Internal surface mails were conveyed by rail, departmental motor services, contract motor services, cycle postmen, motor launch, rowing boats and ferries. With few exceptions the internal mail services functioned normally and uninterrupted throughout the year in spite of the emergency.

The average transit time of surface mails between Singapore and the United Kingdom was maintained at 27 days. Surface mails to and from the United Kingdom continued to be heavy, the homeward Christmas despatches being the heaviest on record.

The Money Order services were again extensively used. Four hundred and forty-seven thousand four hundred and twenty-seven Money Orders to the value of \$41,258,265 being issued, and 267,937 to the value of \$23,777,476 being paid.

As from 1st January, 1949, following the passage of a new Savings Bank Ordinance No. 40 of 1948 the Penang and Malacca divisions of the former Straits Settlements Savings Bank were amalgamated with the former Savings Banks of the Federated Malay States, Johore, Kedah and Kelantan under the title of "Federation of Malaya Post Office Savings Bank". This report, therefore, for the first time covers the operations of the Savings Bank for the whole territory of the Federation of Malaya.

The new rules under the Ordinance provided for the raising of the limit on withdrawals on demand from \$25 to \$50 and for Telegraphic withdrawal from \$100 to \$200.

During the year, the value of Savings Bank transactions was \$50,671,514 of which \$25,634,697 represented deposits and \$25,036,817 withdrawals. Twenty-six thousand and sixty-six new accounts were opened and 9,660 accounts were closed.

The number of depositors in the Federation of Malaya Post Office Savings Bank on 31st December, 1949, was 229,648 as compared with 213,242 on 31st December, 1948, an increase of 7.7 per cent.

The amount standing to the credit of depositors on the 31st December, 1949, inclusive of interest was \$47,288,733 compared with \$45,604,853 on 31st December, 1948. The average amount at the credit of each depositor was \$206.

Out of a total of 182,391 withdrawals no less than 126,248 or 69 per cent. were withdrawals on demand. The number of Telegraph withdrawals was 3,347.

Meetings of District Joint Committees, which were held during the year, brought forth useful results and preliminary steps for the formation of a Departmental Whitley Council were taken.

The recreation clubs at Kuala Lumpur, Ipoh, Penang and Taiping continued to function successfully, in spite of inadequate facilities, and the holiday bungalow maintained at Penang was well patronized.

Telecommunications.

The office of the Director-General of Telecommunications for the Federation of Malaya and Singapore is in Kuala Lumpur where the Main Stores, Workshops, Accounts Branch and Training Centre are also situated.

The Department provides, maintains and operates Telecommunications services for the public in addition to which it provides for the specialised requirements of the Police, Malayan Railway, Civil Aviation, Meteorological, and other Departments.

Progress towards return to pre-war standards of service was handicapped by the continued slow deliveries of plant and materials ordered by the Malayan Planning Unit in 1945. Towards the end of the year supplies improved and in the rural areas a start was made towards meeting outstanding demands for telephones. The return to pre-war standards of service and efficiency has been further retarded by the Emergency which continued throughout the year though the demands on the Department were not so extensive as in 1948.

Telegraph Services.

These services were further extended during 1949 by the addition of two teleprinter circuits making 20 in all within the Department. The number of manual Morse circuits shows a very large increase from 9 to 25 but this is due to the inclusion in the figure of the manually, operated wireless telegraphy circuits which have hitherto been omitted.

The number of telegrams handled dropped from 1,501,145 in 1948 to 1,346,501 in 1949. This is a reflection of a world wide tendency and is accounted for by the increase in the number of telephone subscribers and the increase in the number of teleprinter stations in the teleprinter service.

The public teleprinter service continued in popularity and by the end of the year a total of 20 new stations had been installed making 60 in all.

Telephone Services.

There was a marked increase in the number of telephone instruments in use at the end of the year, the number being 20,362 representing an increase of 16 per cent. on the 1948 figure. The number of subscribers increased by 1,138 to 13,497 while the number of outstanding applications for telephone service fell from 5,049 to 4,371. It was possible during the year to re-introduce a number of coin-box call offices in Penang and Kuala Lumpur though their usefulness is limited by the shortage of coins of the larger denominations.

Trunk telephone traffic continued to increase during 1949 and in spite of the provision of 79 additional trunk and junction circuits, the network continued to be greatly overloaded.

It was found necessary in December, 1949, to increase the surcharge over pre-war rates from 25 per cent. to 75 per cent. as a result of the world-wide increase in prices. This increase, although considerable, is not yet commensurate with the increase in the cost of materials, salaries, wages, etc.

As mentioned earlier the rate of supply of materials is still slow but is improving. It is no longer a shortage of instruments which prevents demands being satisfied but the limited capacity of the existing exchanges and a shortage of underground cable plant. Towards the end of the year rapid progress was being made in the replacement of small manual exchanges by rural automatic exchanges. During the year a total of 16 such conversions were made.

Four new exchanges were opened during the year bringing the total in the country to 201. Eighteen exchanges were replaced by switchboards of larger capacity and seven extensions of exchange switchboards were carried out.

Work was completed on the erection of a third storey to the Kuala Lumpur Telephone Exchange building and installation of the new equipment commenced in late December. Coincident with this installation a very extensive underground cable scheme was started which should be able to satisfy demands in Kuala Lumpur for many years to come.

During the year more than 650 miles of new pole route were built and the length of wire thus brought into service exceeded 6,000 miles. The Department now has some 6,175 miles of route supporting 52,640 miles of conductors. In addition to this there are 428 miles of underground cable and a quantity of submarine cable.

Radio Services.

Radio Telephony services between Kuala Lumpur and the East Coast continued in use throughout the year. It may, however, become impossible in the near future to maintain these services as spares are difficult to obtain for the existing obsolete American Army equipment and financial provision to replace the system has not been forthcoming.

Tests were carried out with a view to the proposed introduction of a Multichannel Very High Frequency Radio Telephony Link between Kuala Lumpur and Singapore and much useful information was obtained. Lack of suitable test equipment and inadequate funds have limited the activities of the Department in this direction.

Radio Communication to ships at sea from the coast stations at Penang and Kuala Trengganu continued throughout the year.

The Telecommunications Department continued to operate and maintain for the Civil Aviation Department all Telecommunications Services at the Federation Aerodromes of Penang, Taiping, Ipoh, Kota Bahru, Kuantan and Kuala Lumpur.

Towards the close of the year new equipment, to replace the outmoded services equipment at present in use, was arriving in fairly large quantities. This equipment on which the work of installation has commenced will mean a more reliable and efficient service than has hitherto been possible.

The requirement of the Meteorological Department for relaying reports from Meteorological Observatories throughout Malaya to the Meteorological Officer at Kallang Airport, Singapore, has continued to be satisfied.

The various Radio Services provided for the Police Department expanded very considerably during 1949. Seventy-two new stations in the different services were installed by this Department. More expansion, especially in the Very High Frequency Network for short distance communication and the control of Flying Squads, is planned and, despite initial difficulties with the equipment, the fulfilment of these plans is progressing satisfactorily.

Railway Telecommunications.

Approximately 80 per cent. of the work of reconditioning and repairing of the Railway Telecommunications Electrical signalling services undertaken by this Department was completed by the end of the year while work proceeded on the reconstruction of the East Coast route. An improved design of Control Telephone was introduced on the main, Kedah, Port Swettenham, Batu Arang and Telok Anson lines.

The installation of Long Section Key-token Instruments, enabling a faster passage of traffic through longer sections, was in progress on the main line and on the Kedah branch line.

To improve speech communication on the control system, amplifiers were installed at Kuala Lumpur on the Ipoh and Singapore control lines.

Emergency Works.

Expansion of the number of circuits provided for the Public and Security Forces continued. Many of the temporary lines hurriedly provided at the beginning of the Emergency have been reconstructed on a permanent basis.

All staff, particularly the operators and linemen, have earned the appreciation of all, and of the Planting and Mining communities in particular. Casualties in direct encounters with bandit forces have occurred but fortunately there has been no loss of life.

Staff.

Training in all technical branches of Telecommunications Work has continued throughout 1949 in every way possible. At present the Department is maintaining four scholars in the United Kingdom studying for professional qualifications. Together with these there are four scholars training under the auspices of the Colonial Development and Welfare Fund.

Six new apprentices were selected and joined 15 others in training at the Kuala Lumpur Technical College.

The Departmental Training Centre in Kuala Lumpur provided courses on such diverse subjects as Automatic Exchanges, Teleprinters, Manual Telephony, Radio, Carrier-telephony, and Railway Signalling. These courses have done much to improve the standard of efficiency in the maintenance of equipment throughout the country.

Correspondence courses on Telecommunications Subjects were organised for the benefit of Technical Staff and were extremely popular. More than 100 members of the staff were taking these courses, many of whom were taking the maximum of three subjects.

With a view to increasing efficiency and effecting economies a detailed examination of staff reorganisation was well advanced at the end of the year and arrangements were put in hand for surplus staff to be absorbed into other Departments.

CIVIL AVIATION.

The construction of major facilities, postponed from 1948, had to be further delayed owing to the Emergency. These included the plan for complete reconstruction and new operational buildings at Kuala Lumpur aerodrome, and also the much pressed for aerodrome to serve Malacca. Temporary buildings to meet the operational requirements of the airline operators and to improve the passenger handling facilities were constructed or improved at Kuala Lumpur, Taiping, Kota Bahru and Alor Star. At the close of the year the Department of Civil Aviation was manning and operating aerodromes at Kuala Lumpur, Ipoh, Penang, Alor Star, Kota Bahru and Kuantan, and maintaining as diversion aerodromes, Port Swettenham, Batu Berendam, Kluang, Sitiawan and Gong Kedah.

Malayan Airways Ltd.

Malayan Airways Ltd. continued to operate their internal and external services with regularity, punctuality, and complete freedom from accident. The number of civil passenger aircraft movements within the Federation in January, 1949, was 968, and increased by only 7 per cent. during the year. Passengers embarked at Federation airfields totalled 3,537 in January and 3,722 in December an increase of 5.2 per cent. passengers landed totalled 3,712 in January and 3,672 in December, a decrease of 1 per cent. The inauguration of a "first class mail by air" service resulted in appreciable increase in the quantity of mail carried, and freight figures also improved.

External Air Services.

K.L.M. Medan/Penang service was withdrawn through lack of support, but all other services continued throughout the year. Malayan Airways introduced regular services to Borneo through Singapore.

Telecommunications.

The Telecommunications Department continued to provide all Civil Aviation telecommunication services and throughout the year a gradual transition took place from the old R.A.F. equipment to new equipment from the United Kingdom, with a corresponding all round improvement in range and serviceability.

Flying Clubs and Private Owners.

The Flying Clubs continued to receive enthusiastic support and, against considerable difficulties, expanded their interests to include branch Flying Schools at Johore, Labis, Malacca and Ulu Bernam. A new Flying Club was opened at Kluang with the assistance of the Singapore Flying Club. Valuable experience to the Club pilots, and some financial assistance to the Clubs, was afforded by a great demand for pay dropping to isolated estates, and for leaflet distribution on behalf of the Government in conjunction with anti-bandit activities.

The Perak Flying Club commenced operation with two primary, two intermediate and one "Olympia" type gliders. Great keenness and enthusiasm has been shown for this sport, new to Malaya, and the faith of the Club's founders and senior members in its continued development has been well justified.

Continuation of petrol rationing and the distance of the aerodrome from Georgetown restricted the activities of the Penang Flying Club, and it was only the enthusiasm of a few members which carried it through an extremely difficult year.

Club activities as a whole were marred by the untimely death of the Kuala Lumpur Flying Club's Chief Instructor, Mr. A. Glassborow, who lost his life whilst returning from a pay drop. Apart from this, the accident rate for the Clubs was extremely low, there being no other incidents involving personal injury.

Private flying made slow but sure progress, several new airstrips being completed or under construction during the year, and applications were received for the registration of four additional private aircraft. It is confidently expected that the interest in the light aeroplane as a means of safe and rapid transport between the centres of population and the outlying and isolated estates will continue, paralleled by the training of the youth of Malaya in the Malayan Auxiliary Air Force.

Government Aircraft.

One or other of the two Government Gemini aircraft was stationed in Kuala Lumpur throughout the year, and they performed valuable service. Four hundred and forty-five flights were made on official business and a total of 567 hours flown.

Crash/Fire Services.

By the end of the year each aerodrome operating scheduled services had been re-equipped with new crash and fire equipment. Willys Jeep fire tenders were accepted for general use, and, at the busier airfields, were augmented by reconditioned R.A.F. tenders capable of delivering 2,000 gallons of foam per minute.

Meteorological Services.

Early in the year it was agreed between the Federal Government and the Government of Singapore that the Forecast Office in Singapore should function as a joint Forecast Office serving both the Federation and Singapore. All forecasts for civil aviation flying within the Federation, which numbered 2,213 during the year, were supplied from the joint Forecast Office which is manned by both Federal and Singapore staff.

The recommendation of the International Civil Aviation Organisation Regional Meeting in New Delhi that a Dependent Forecast Office should be established at Bayan Lepas, Penang, was approved by the Council of I.C.A.O., for implementation on 1st November, 1949. The volume of international traffic through Penang would not, however, at present justify the expense of providing such a service which, therefore, remains under the heading of long-term planning.

PART II.

CHAPTER I.

GEOGRAPHY AND CLIMATE.

The territories comprising the Federation of Malaya are situated in the Southern Section of the Kra Peninsula which protrudes at the South-eastern corner of Asia between India and China, between latitudes 1° and 7° North and longitudes 100° and 105° East. The Federation of Malaya covers an area rather more than twice the size of the Island of Ceylon and slightly larger than England without Wales. The largest of its territories is the State of Pahang, which is twice the area of Lancashire and Yorkshire combined and the smallest is the State of Perlis which is about twice the size of Rutland.

The State of Perlis lies on the North-west coast of the Peninsula and is bounded by a range of hills running North and South which separates it from the Siamese Province of Setul. On the East the boundary is with the Siamese Province of Nakon Sridhammaras and the Malay State of Kedah, which is bordered on the interior by the Siamese States of Songkhla and Patani and by the State of Perak. The Muda River separates it from Province Wellesley.

The State of Perak stretches South from Province Wellesley, Kedah and Siam and is separated from Kelantan and Pahang on the East by the main range of mountains that form the backbone of the Peninsula. On the South, the Bernam River separates the State from Selangor, which is bordered on the East by the State of Pahang and on the South by the State of Negri Sembilan.

Stretching North on the East coast between the Northern Border of Pahang and the Siamese boundary lie the two States of Trengganu and Kelantan.

In the extreme South of the Malay Peninsula lies the State of Johore. Four-fifths of the surface of the Federation of Malaya is covered by dense tropical jungle. The only generally cleared parts of the country are the long stretches down the West coast, an area in the North and a number of open stretches up the principal rivers. The State of Trengganu, for example, is divided into sixteen river basins all of which empty into the China Sea.

The Malay rivers at their sources and in their upper reaches are quick flowing often with tortuous rapids and precipitous gorges.

In the lower reaches, the descent is more gradual and the water takes on a muddy hue from contamination with the silt of the plains through which they meander, debouching ultimately through strips of mangrove swamp, particularly on the West coast.

The two principal rivers of the Peninsula are the Perak and the Pahang, the latter being some ten miles shorter than the River Thames. It springs in the main range of mountains, the highest of which is Gunong Tahan which rises to over 7,000' at its summit. This and other peaks constitute some of the highest territory South of the Himalayas, while there are half a dozen prominences which would comfortably overshadow Ben Nevis. That part of the country free from the torrid luxuriance of forest and jungle has been developed into great rice-producing areas as in the alluvial plains of Kedah, Perlis, and Kelantan. Other stretches have been scarred by the incisions of industry as in the Kinta valley of Perak, which opens out into a monotonous prospect of silver grey silt, the residuum of tin extraction.

The coast line of Malaya extends for over one thousand miles; on the West a practically unbroken succession of mangrove and mud-flats with infrequent indentations of picturesque bays fringed with coconut palms and the graceful spires of the casuarina. On the East coast there are long unbroken stretches of sand and surf bordered by a littoral vegetation which lends to it a beauty possibly unparalleled in the tropics.

Within the territorial waters lie the Langkawi Islands off the North Kedah coast rising to over 2,000' wrapped in wild and rugged beauty. Farther south there is the island of Penang, picturesque in a different way, whose features have been eulogised by travellers from the earliest histories. The Island of Pangkor off the coast of Perak was once a Dutch settlement but little remains in evidence of this history beneath the vegetation which has long since reclaimed its own.

Finally off the East coast among a sprinkle of beautiful islands there is Tioman with its symbolic silhouette of granite peaks.

Climate.

The principal features of the Malayan climate are copious rainfall, high humidity and uniform temperature. The year is commonly divided into South-West and North-East monsoon seasons which correspond roughly with the Summer and Winter of northern latitudes. The months between these two seasons which correspond with Spring and Autumn of northern latitudes are the wettest months over most of Malaya. Coastal districts, however, have their own peculiar rainy seasons.

Rainfall averages about 100 inches a year, though the annual fall varies considerably from place to place and year to year. Jelebu, in Negri Sembilan, is the driest place in Malaya with an average of 65 inches and Maxwell's Hill the wettest with 198 inches a year.

The average maximum temperature in the plains is rather less than 90° F. and the minimum about 70° F. At the hill stations temperatures are considerably lower; at Cameron Highlands the extreme temperatures recorded are 79° F. and 36° F. and at Fraser's Hill 81° F. and 53° F.

CHAPTER II.

*HISTORY.**The Aborigines.*

The Malayan aborigines comprise a series of exceedingly complex yet primitive groups few of which have yet received detailed study. Perhaps the best known as well as racially the purest are the Negritos (Malay, Semang and Pangan) in the North. A wandering pygmy people divided into several distinct tribes they are akin to similar infantile Negritos in the Andaman Islands, New Guinea, the Philippines and newly recorded groups in Indonesia. Originally living in relatively open areas the Negritos have been driven into the hills by Malay and Chinese expansion and have recently forsaken the bow and arrow for the blowpipe of their Senoi neighbours whose language and way of life they are also adopting. Many small Negrito groups, particularly in Kedah, have died out since the beginning of the century.

The Senoi in the central highlands show many varying racial traits although superficially similar in material culture and their shifting methods of agriculture. There are several distinct variations of language which appears generally Mon Khmer in character. In physical appearance the Senoi differ widely the distribution of distinct types bearing little relation to ethnic group. Only one type is markedly Mongoloid and recent research workers have reported Melanesian, Australoid, Papuan and other elements as common. Social organisation varies widely. The Temer in Eastern Perak and Ulu Kelantan have a relatively elaborate system and are a virile active group markedly contrasting with the Semai of Cameron Highlands whose integrity has suffered considerably by the opening up of this region. In the lowlands there are a number of settled Senoi groups who, with their rubber plantations and fruit orchards, are more than holding their own against Malay and Chinese competition. It was formerly the custom to refer to these people as Sakai but this somewhat degrading term has gained popular usage to cover a variety of aborigines without distinction and most anthropologists now prefer to use Senoi the common word for mankind in their languages.

In the Southern lowlands are a number of aboriginal groups variously described as Jakun or Proto-Malay. The Jakun dialects belong to the Malayan Polynesian group and are further more, mixed, through an intercourse extending over many centuries with the historical Malay tongue. They are poorer in material culture than the Senoi and appear to have originated in the Rhio Archipelago. It would seem that they have formed the nucleus of much of the modern Malay population of the South—a circumstance which is continuing at the present time. One special group, the former boat dwelling Orang Laut, have settled down in fishing villages notably along the West coast of Johore.

Many speculations have been made as to the order in which these aborigines reached Malaya. This, however, is a question for archaeological research, and not enough has yet been undertaken to draw any conclusion of value. The census of 1947 showed

the total number of "nomadic aborigines" to be 29,648 a figure which, for various reasons, is probably an underestimate rather than the reverse.

The Indian Period.

About the first century, A.D., Indian traders from the Coromandel coast began to arrive in the Peninsula and in other parts of the Archipelago in great numbers. They came to barter their fabrics, their iron implements, their beads and the like for the produce of the jungle: its gums, camphor, wood and gold-dust. Ptolemy's account of the "Golden Chersonese" is clearly descriptive of the Peninsula about this period.

In time many of these Indians, accompanied by their skilled craftsmen, such as architects, cloth weavers and workers in metal, settled here and in numerous other places in the Archipelago, inter-married with the aborigines and built towns. In our part of the Peninsula their chief settlement was on the river Merbok in Kedah. This town came to be known in Malay records as Langkasuka. These Indian colonies led the virtually autonomous existence of city-states but, as time went on, they all came under the domination of Sri Vijaya, an Indo-Malay Kingdom, which had its capital, at one period, in Palembang. Later Sri Vijaya shifted its capital, it is thought, to Langkasuka.

The Indians wielded an important influence among the tribes with whom they had contact in the neighbourhood of the towns and the ports. They introduced Indian customs, including the system of rule by rajas in place of, or side by side with, the old simple Proto-Malay patriarchal or matriarchal tribal organisation. They disseminated Buddhism both of the southern school (Hinayana) and the northern school (Mahayana). Animism was, however, the basic cult of the Malays until it was replaced by Islam. The Indians brought a large number of Sanskrit words into the Malay language, introduced Indian alphabets for writing that language, and in time familiarised the Malays with the great Indian epics to which Malay literature and drama of the Shadow Play variety came to owe so much.

Indian economic and cultural dominance lasted here from the early Christian era up to about the 15th century when the arrival of Islam first weakened and then destroyed it. The process of destruction was accelerated by the advent in 1511 of the Portuguese who came to control the Malayan trade which up to that time had been largely Indian.

The Kingdom of Malacca.

It is conjectured that it was from the Kingdom of Sri Vijaya that the State of Tumasik (later to be known as Singapore) was founded about the 13th century. The latter, in turn, gave rise to the Malay Kingdom of Malacca. Tumasik, after beating off an attack by the Siamese about 1348, fell to the forces of Majapahit about 1376 and disappeared from history for four hundred years. The dispossessed ruler of Tumasik, Parameswara, fled to Malacca (then a little fishing village) which in the course of the following century grew to be of such great importance. The infant Malay State which he founded there was beset by enemies, chief among

whom were the Siamese who claimed allegiance from its rulers. The latter, however, appealed for protection to the Emperor of China who raised the title of the Malay ruler to that of King of Malacca in 1405, freed him from any dependence on the Siamese, and warned that people to refrain from attacking Malacca. Later in the century the Siamese renewed their attacks, but by then the Malays had grown powerful enough to defeat them without outside assistance, and even to conquer the Siamese vassal State of Pahang about 1458.

The new Kingdom of Malacca grew apace in the 15th century. Its port was thronged by traders from many nations and small settlements of Javanese, Chinese and others, were established there. By the end of the century it had extended its sway over the Malay Peninsula as far north as Patani and over some of the coastal regions of West Sumatra. During that century, too, began the conversion of the Peninsula Malays to Islam.

The first centre of Islamic missionary effort in the Malay Archipelago was Northern Sumatra. Thither Indian, Persian and Arab Muslim missionaries flocked from the 14th to the 17th centuries. From North Sumatra Islam spread to Malacca which, by the end of the 15th century, had become the centre of the new religion in the Archipelago.

This process of Islamisation was gradual: it started in real earnest in the Peninsula in the 15th century and was not completed till about the 17th century, when Iskandar Muda, Sultan of Aceh, compelled acceptance of Islam at the point of the sword. Its progress appears to have been stimulated by the violent opposition of the Portuguese. Its effect among the Malays was enormous: India lost its pre-eminence among them as a sort of mother-country: Indian ties were loosened and finally broken, Indian culture was no longer sought after: the Arabs and their religion and culture were taken as a pattern: the Indian pantheon was replaced by the Muslim belief in One God. Buddhism and Hindu rites yielded to Islam: Indian temples and religious symbols were destroyed: Indian names of places were in some cases altered: the local rulers who used to be known by the Indian titles of Maharaja or Parameswara were thenceforth called by the Arabic title of Sultan: the Arabic alphabet was adopted in place of Indian scripts: the flow of Sanskrit words into the Malay language ceased and that source was replaced by Arabic. The Malay versions of the Indian epics, the Mahabharata and the Ramayana, were put in the background and replaced by writings with a Muslim bias. Malay versions of Hindu romances were often altered to give them a Muslim colouring. Indian aestheticism gave way to Muslim rigidity; and the convivial habits of the Malays were replaced by the strict teetotalism prescribed by Islam.

The Malay Kingdom of Malacca came to an end in 1511 when, after fierce fighting, the town was captured by a Portuguese fleet under Alfonso d'Albuquerque. The Malay ruler, Sultan Mahmud, fled to Johore where, in the course of time, he set up a new kingdom based on Johore, Pahang and the Riau Archipelago which became known as Riau-Johore.

The Portugese held Malacca from 1511 until 1641 when they were dispossessed by the Dutch. They were crusaders rather than traders, and their compulsory conversions to Christianity made them detested by the Muslim Malays. In view of the scanty reinforcements which they received from Europe they encouraged their soldiers to inter-marry with the local women and enlisted the sons born of these unions in their armed forces. Lack of assistance from their home country was mainly responsible for the Portugese defeat by the Dutch in 1641.

The Dutch conquerors of Malacca held their new possessions till 1795. In striking contrast to their predecessors they concerned themselves almost entirely with trade. When they were replaced by the British they left behind in the town of Malacca a few interesting specimens of Dutch Colonial architecture which are still in use.

In 1795, during the Napoleonic wars, England took peaceable possession of Malacca, returned it to the Dutch in 1814 in accordance with the Convention of London, and finally regained possession of it by virtue of the Anglo-Dutch Treaty of Holland of 1824 which recognised the Malay Peninsula as being within the British sphere of influence.

The Kingdom of Riau-Johore.

Mention has already been made of the Kingdom of Riau-Johore which was founded by the fugitive Sultan of Malacca and which included Johore, Pahang, Trengganu, the Riau Archipelago and the Karimon Islands, and indeed loosely took in all those parts of Malaya over which the Portugese did not exert effective control, that is to say, almost the whole of Malaya for the Portugese (and their successors the Dutch) could command only the coastal areas between Malacca and Batu Pahat in Johore. These European nations, however, held command of the sea : an all-important factor which debarred their Malay enemies from legitimate trade and drove them all the more readily to piracy.

The Riau-Johore Kingdom, with its capital at Kota Tinggi, Johore, from the very outset had an uneasy existence. Its rulers were weak ; deprived of trade, its funds were low : it was desolated by internecine conflicts, and it was not long before other enemies, this time non-European, appeared on the scene. Early in the 17th century a great and sinister figure made his appearance in the Archipelago : Iskandar Muda, Sultan of Aceh, in North Sumatra. His piratical hordes swept through Malaya massacring, pillaging and carrying away into captivity many thousands of Malays. Malacca was the only place that he failed to capture, but no other territory as far north as Patani was immune from his depredations. He completed the conversion of the Peninsular Malays to Islam by compelling conversion at the point of the sword.

This invasion further weakened the already weak position of the Riau-Johore Kingdom. The year 1699 was signalized by the murder of the Sultan, known posthumously as Marhum mangkat di-julang, the last and the most degenerate of the direct line of the old Malacca Kings. The extinction of the old royal stock of Malacca in Johore, coupled with the periodical invasions of the Bugis which

began to occur about this time, and to which reference is made below, commenced the disintegration of the Riau-Johore Kingdom which the Anglo-Dutch Treaty of 1824, by splitting up the Kingdom into English and Dutch spheres of influence, completed.

The successors of the murdered Sultan lost most of their power, and retired to Riau, leaving their Bendahara behind in Pahang, their Temenggong in Johore, and another high official in Trengganu. These chiefs, nominally the Ministers of the Sultan, eventually became the rulers in their respective States and the present royal families of Pahang, Johore and Trengganu are descended from them.

The Bugis from the Celebes began to swarm into the Malay Peninsula about the beginning of the 18th century. They were a bold piratical people and established a great name for themselves as fighters. They were led by warriors with the name of Daing and Suliwatang and they often wore armour consisting of coats of chain-mail. The Bugis overran Johore and Selangor, made themselves felt in Perak, Pahang and Trengganu, and in the course of the century they invaded Kedah on several occasions. When they conquered a territory and settled there their chiefs invariably took wives from the local notables. The ancestors, on the male side, of the present royal families of Johore and Selangor are descended from the offspring of such unions. It is probable that, but for the presence of European nations in the Archipelago, the Bugis would have carved out for themselves quite a considerable kingdom in Malaya.

In 1773, the country now comprising Negri Sembilan inhabited by a people of Minangkabau origin who had extensively intermarried with the local Proto-Malays and who followed a matriarchal system of society, had seceded from the crumbling Riau-Johore Kingdom to form a confederation of little States under a Minangkabau Prince from Sumatra.

Relations between Siam and the Northern Malay States—Foundation of Penang.

Although Siamese aggression in the southern part of the Malay Peninsula had been effectively checked by Malacca in the 15th century the destruction of that Kingdom in 1511 by the Portuguese (who cultivated Siamese friendship) had the effect of reviving Thai pretensions to the Northern Malay States : Kedah, Kelantan and Trengganu. The Siamese suzerainty over these States was vague, fitfully exercised and often resisted. The practice, however, grew up for these States to send periodically to Siam a ceremonial present of "Golden Flowers" (bunga emas). This offering was claimed by Siam to be a mark of submission but by the Malays to be merely a sign of respect and friendship. The Siamese suzerainty, when exercised, was resented by the Malays and, in the case of Kedah, the issue became acute when Francis Light, in 1786 on behalf of the East India Company, took possession of the Island of Penang which hitherto had formed part of Kedah. Light had been negotiating with the Sultan for the cession of Penang. Chief among the terms demanded by the Sultan were a guarantee of military assistance in the event of attack upon Kedah by land (that is to say, by Siam, Selangor under the Bugis, or Burma) and

the annual payment of a sum of \$30,000. Although Light forwarded these terms to India for acceptance and proceeded to take possession of the Island the Company vacillated upon the terms while declining to give up possession.

In 1791 the Sultan was defeated in an attempt to retake the Island by force. By a treaty made in 1800 between him and the Company the cession of Penang, to which Province Wellesley was now added, was confirmed, and the Company agreed to pay the Kedah ruler \$10,000 a year while they remained in possession of these places. The treaty was silent as to military assistance. Throughout the negotiations for the cession of Penang the Kedah ruler had omitted to consult Siam. The Siamese were furious at this ignoring of their suzerainty but they bided their time.

In 1821 came their opportunity for vengeance. A Siamese force under the Raja of Ligor invaded and conquered Kedah. No quarter was given to the inhabitants and many thousands were massacred, Kedah losing thereby, it was claimed, more than half its population. The Sultan was driven into exile and the Siamese assumed direct control of the country, a state of affairs which continued until 1842 when the Siamese officials were recalled and the ex-Sultan was reinstated though Perlis, which hitherto formed part of Kedah, was placed under a separate Raja. Kedah, however, together with Kelantan and Trengganu, remained under the suzerainty of Siam until 1909 when the Siamese, by the Treaty of Bangkok, transferred all their rights over these States and over Perlis to Great Britain.

Penang, the cession of which to the East India Company had been the source of such trouble for Kedah had, in many respects, a promising start. Acquired primarily as a naval base, it had an assured food supply from the agricultural region of Province Wellesley ; it was a free-trade port ; it allowed the occupation by settlers of such land as they could clear with a promise of title ; its status was raised in 1805 to that of a Presidency like Bengal, Madras and Bombay, and it was subject only to the control of the Governor-General of India. All these factors attracted to the Island a large and varied population and the stage seemed set for the development of Penang into a really important city. But the deaf ear turned by India to Francis Light's appeals for administrative assistance resulting in the necessary alienation of lands without prescribing rent or conditions of cultivation, and the omission to reserve land for public purposes, his dependence upon opium, arrack and gambling farms for revenue, and his dependence upon India for decisions greatly impeded the progress of Penang. The Indian habit of permitting officials to engage in local trade was another factor which militated against Penang's progress. But above all Penang as an important city was doomed by its inferiority as a sea-port to Singapore which, through the foresight of Thomas Stamford Raffles, was founded as the great natural trade entrepot in the Malay Archipelago.

Singapore.

Thomas Stamford Raffles, a young official in the employment of the East India Company at Penang, was the founder of Singapore. In 1808 he attracted the notice of Lord Minto, Governor-General of



Sakai with blow-pipes.

India, by his eloquent plea against the proposed abandonment of the ancient town of Malacca—a proposal put forward by the Directors of the East India Company on the ground that Malacca would soon have to be returned to their Dutch rivals.

Later, Lord Hastings, successor to Lord Minto, authorised Raffles to seek a trading-station south of Malacca on the route of English ships to the Far East, on a site not already occupied by the Dutch, the great rivals of the East India Company in their unceasing quest for profitable trade centres. Raffles decided upon the Island of Singapore, at that time included in the territories still nominally held by the rulers of the Kingdom of Riau-Johore. A difficulty in negotiating arrangements with the ruler was that the then nominal Sultan of that Kingdom, Abdurrahman, an appointee of the Dutch and the Bugis, was not the eldest but the second son of the preceding ruler. The eldest son Husain had been ignored. Raffles solved the difficulty by entering into negotiations with Husain, and with the Temenggong of Johore, nominally the minister in Johore of the Riau-Johore Kingdom, but virtually the ruler of all Johore except the Muar district; and in 1819, the Temenggong and Husain, now recognised by Raffles as Sultan, signed an agreement allowing the British to choose land for factories in return for annual allowances of \$5,000 to the Sultan and \$3,000 to the Temenggong. In 1824 a final agreement was concluded ceding Singapore in perpetuity to the British.

Raffles' policy of free trade for Singapore, his encouragement of settlers, and above all the natural advantage of Singapore as a port serving the whole of the Archipelago, led to the phenomenal development of the new town.

People of many races, above all the Chinese, thronged to Singapore as, in a lesser degree, they were thronging to Penang. The descendants of these Chinese were to become the pioneers of the Chinese immigration into the Malay States which began on a large scale in the latter half of the 19th century.

Raffles was a scholar of Malay with an intensely sympathetic interest in the local peoples of all races especially the Malays. He worked upon a scheme for a complete federation embracing the States of the Peninsula and of the Archipelago including Mindanao in the Philippines. He protested against the reintroduction of the slave trade and against slavery. He planned a Malay College for Singapore.

Establishment of British Protection in the Malay States.

Raffles strongly favoured British expansion not only in Malaya but elsewhere in the Archipelago. With his disappearance from the scene the ideal of a forward policy in this part of the world became dormant until it was awakened, in the last quarter of the century, by the rivalries of the great European powers and by the demands of British and Chinese capital seeking fresh fields for expansion coupled with the discovery of the rich mining resources of the Malay hinterland. The *laissez faire* policy of the successive British Governments and the unenterprising attitude of the East India Company (which governed the Straits till 1858), particularly

sensitive to any venture savouring of expense, left the Malay States almost completely untouched although some of these States had asked for British protection.

In the seventies of the century, however, the British Government came to realize that a more progressive and realistic policy was necessary in its dealings with the Malay States. The administration of affairs in the Straits was now under the control of the Colonial Office to which it had been transferred from the India Office in 1867, and the new system enabled London to pay more attention to the Malay Peninsula.

The reasons which prompted the British Government to play a more positive part in the affairs of the native States were as follows :

FIRST—This was the period of annexation of many of the backward territories in the world by the great European nations. If Britain did not take immediate action to dominate the Malay territories there was a grave danger that another European power would step in and do so. In this connection the granting by the Rajas of huge concessions of land wholesale to Europeans and others, a practice that became prevalent at this period, constituted a grave danger to the British position in the Malay Peninsula as there was always a possibility that these concessions would fall into the hands of the subjects of another European nation which would thus be provided with a pretext for interference in the Malay States. This danger was very real (and came chiefly from France, Germany and Russia).

SECONDLY—There was the danger from Siam. In 1873, the year before the signing of the Pangkor Treaty, she had almost succeeded in inducing Perak to come over to her as a tributary State ; she already had vague rights over the States of Kedah, Kelantan and Trengganu. But it was not so much Siam that was feared : the fact was that the very existence of Siam herself as an independent nation was imperilled by France. If Siam fell into the hands of the French then her Malay subject territories would automatically go to France too, and the stage would have been set for an Anglo-French war.

The THIRD reason which determined British intervention was that the position of the Western Malay States had deteriorated ; disputed succession to a Sultanate and quarrels (in which the Chinese took a prominent part) as to the ownership of lands rich in tin led to civil wars and to widespread disorders.

The FOURTH reason was the impulse of British capital (either European or owned by Malayan Chinese) attracted by the mineral wealth of the interior as demonstrated by the rich tin fields in Larut and elsewhere.

So in 1873, Sir Andrew Clarke, the new Governor of the Straits, came out armed with authority from the home Government for more active intervention in Malaya. The first result of the new policy was the Treaty of Pangkor with Perak in 1874. In the same and the following decade of the century there followed agreements with Selangor, with Sungei Ujong and the other little States of Negri Sembilan, and with Pahang. In 1909, after long negotiations with Siam, that country transferred to Great Britain her rights in the

Northern States, and in the same year agreements were concluded with Kedah, Kelantan and Perlis, and in 1919 with Trengganu. Relations with Johore were regulated by a treaty made in 1914.

These treaties, either in their original form, or in the form in which some of them were later modified, were in their main features substantially similar. The provisions common to all these agreements were as follows :

- (1) The Malay States agreed to accept British protection and to have no dealings with foreign powers except through Great Britain.
- (2) Great Britain guaranteed the States protection against attack by foreign powers.
- (3) The agreement provided for the appointment to the State of a British Officer whose advice must be taken and followed except in matters concerning the Malay religion and Malay custom.

Some of the treaties contained no express mention of custom, but the undertaking not to interfere with custom was accepted as being implicit in all the agreements with the Malays, whether it was set forth in the actual words of the treaty or not.

Although the title of the British Officer appointed in pursuance of the treaties varied—in Perak, Selangor, Negri Sembilan and Pahang he was called Resident, in the other States, Adviser—it was never intended that there should be any difference in their functions : they were all meant to be advisers. But from the very start in Perak, Selangor, Negri Sembilan and Pahang the Residents not only advised on policy, they were placed in such a position that they had to see that any policy decided upon was put into operation ; they became in fact not alone advisers but the chief executive officers of the State. In the other States, on the other hand, the Advisers had almost always confined themselves to the giving of advice : the translation of that advice into action in internal affairs was a matter for the Malay administration.

The early Residents were faced with great difficulties : the Colony Government was not generous, and money had to be found to finance the new regime and put it on its feet, to compensate the Sultan and Chiefs for the withdrawal of their customary privileges of taxation, to construct roads, buildings and other public works and the like. It was decided to raise part of the revenue required by imposing rents on land as land. The Malays were accustomed to taxation only on the produce of land and this innovation (which was ultimately welcomed by the Malays) often caused considerable unrest at first. Then the Chiefs regarded as completely inadequate the allowances which they were given in lieu of their former perquisites. In some instances the valid claims of Chiefs, owing to the absence of accurate information at the Resident's disposal, were rejected. The Resident was given insufficient funds to set the administration at once on a sound basis, and yet he was expected, almost immediately the treaty was signed, to produce sensational results. Consequently, in some matters in which it would have been wise to have proceeded with caution, the Resident was compelled to act somewhat precipitately. One of the most delicate questions was the problem of slavery. The method ultimately

evolved was to prohibit the creation of new slaves, and to provide that existing slaves could purchase their redemption for a small fixed sum. Another source of trouble was the direct use in some States, without reference to the Ruler or to the territorial Chiefs, of the Malay Forced Labour law (Kerah) for the carrying out of public works.

Apart from the personal factors involved, it was the cumulative effect of all these matters: the introduction of land-taxation in a form not understood by the Malays, the abolition of slavery, and the withdrawal of the revenue-collecting powers of the Rajas and Chiefs, that led to the Perak rising of 1874 and the Pahang rising of 1891-1892.

In time, however, the ability, patience and conciliatory attitude of the Residents led to a satisfactory adjustment of these difficulties. Chief among these early Residents were Sir Hugh Low, British Resident of Perak from 1875 to 1888, and Sir Frank Swettenham. Low's official diaries make interesting reading and show how Perak, from small beginnings, was built up stage by stage to the important State that it eventually became. Low was one of the outstanding men of the century in Malaya, a fitting second in his own sphere to Raffles. Not only did he leave Perak prosperous and well governed but Sultan Idris and he were largely responsible for the atmosphere of goodwill which existed between the Malays and other communities.

In 1895, Perak, Selangor, Negri Sembilan and Pahang were constituted into a Federation at the head of which was placed a Resident-General to whom the Residents were subordinated. This inaugurated the system of centralized Government in the Federated Malay States which lasted in varying forms till 1932. The Resident-General was the chief executive officer of the Federation. In 1909 was created a Federal Council on which the Rulers of the four States had seats. The Council took over practically all the legislative functions of the State Councils. The title of Resident-General was replaced by that of Chief Secretary with somewhat diminished powers, and the authority of the Residents was partially restored. In 1927 the Malay Rulers withdrew from the Federal Council and were replaced by four Unofficial Malay Members.

In 1932 came devolution or decentralisation whereby legislative powers were to some extent restored to the States, the authority of the Rulers and the Residents reinforced, and the post of Chief Secretary replaced by that of Federal Secretary with greatly diminished powers.

The cultivation of huge areas of land with para rubber, a product first planted in Malaya towards the end of the 19th Century, together with the development of new rich tin-producing areas and improved methods for tin-extraction in existing areas—enterprises in which Chinese and Indian labour under European and Chinese capital, and Malay small agriculturists played such a great part—opened up an era of phenomenal prosperity for Malaya in the current century. This prosperity was reflected in the opening up of communications on a large scale, in the growth of towns, the

construction of public buildings, the development of irrigation areas for rice cultivation, the expansion of social services and in progress in many other respects.

This progress was brought to an abrupt halt when the Japanese invaded Malaya on the 8th December, 1941. During the enemy occupation for 3½ years, the great majority of Government servants were either interned or suffered the rigours of occupation.

On the eve of the campaign for the liberation of Malaya the Japanese government surrendered unconditionally. In September, 1945, a military administration was established under the command of the Supreme Allied Commander South East Asia and this administration remained unchanged until the establishment of the transitional Civil Government of the Malayan Union on the 1st April, 1946.

The Malayan Union comprised the British Settlements of Penang and Malacca and the former Federated and Unfederated Malay States. The administration of the Malayan Union continued throughout 1946 and 1947 under the arrangements set up under the Malayan Union Order in Council, 1946. The Federal Executive power was vested in the Governor who administered the territory and legislated in consultation with an Advisory Council, the members of which were nominated by himself.

The Federation of Malaya which succeeded the Malayan Union came into being on the 1st February, 1948, on the conclusion of the Federation of Malaya Agreement, 1948, between His Majesty the King and Their Highnesses the Rulers of the Malay States. A short summary of the Constitution of the Federation of Malaya is given below :

Their Highnesses the Rulers of the Malay States.

The present Rulers of the Malay States are :

- | | | |
|---|----|---|
| (1) The Sultan of Johore | .. | H.H. Ibrahim ibni Almarhum Sultan Abu Bakar, D.K., S.P.M.J., G.C.M.G., K.B.E. (Mil.), G.B.E., G.C.O.C. (I). |
| (2) The Sultan of Pahang | .. | H.H. Abu Bakar Ri'ayatuddin Al-Muadzam Shah ibni Almarhum Almu'tasim Bi'llah Abdullah, K.C.M.G. |
| (3) The Yang di-Pertuan Besar of Negri Sembilan | .. | H.H. Tuanku Abdul Rahman ibni Almarhum Tuanku Muhammad, K.C.M.G. |
| (4) The Sultan of Selangor | .. | H.H. Hisamuddin Alam Shah ibni Almarhum Sultan Alaidin Sulaiman Shah, K.C.M.G. |
| (5) The Sultan of Kedah | .. | H.H. Tunku Badlishah ibni Almarhum Sultan Abdul Hamid Halim Shah, K.C.M.G., K.B.E. |
| (6) The Raja of Perlis.. | .. | H.H. Syed Putra ibni Almarhum Syed Hassan Jamalullail, C.M.G. |

- (7) The Sultan of Kelantan . . H.H. Tengku Ibrahim ibni Almarhum Sultan Mohamed IV, D.K., S.P.M.K., S.J.M.K., K.C.M.G.
- (8) The Sultan of Trengganu . . H.H. Sultan Ismail ibni Almarhum Sultan Zainal Abidin, C.M.G.
- (9) The Sultan of Perak . . H.H. Paduka Sri Sultan Yussuf 'Izzuddin Shah ibni Almarhum Sultan Abdul Jalil Radziallah Hu-'an-hu, K.C.M.G., O.B.E.

CONSTITUTION OF THE FEDERATION OF MALAYA.

The Constitution of the Federation of Malaya came into existence on the 1st February, 1948, as a result of :

- (a) the Federation of Malaya Agreement, 1948, between His Majesty and Their Highnesses the Rulers of the Malay States of Johore, Pahang, Negri Sembilan, Selangor, Perak, Kedah, Perlis, Kelantan and Trengganu ; and
- (b) the State Agreements between His Majesty and Their Highnesses the Rulers of the Malay States; and
- (c) the Federation of Malaya Order in Council, 1948.

The State Agreements.

The State Agreements made between His Majesty and the Malay Rulers provide that, subject to the provisions of the State and Federation Agreements, the Rulers shall enjoy the prerogative, power and jurisdiction which they enjoyed prior to the Japanese occupation. His Majesty has complete control of the defence and of the external affairs of the Federation.

Each Malay Ruler undertakes to govern his State subject to the provisions of a written constitution, and the State Agreements also provide that the Ruler desires, and His Majesty agrees, that it shall be a particular charge upon the Government of the State to provide for and encourage the education and training of the Malay inhabitants of the State so as to fit them to take a full share in the economic progress, social welfare and Government of the State and of the Federation.

The Federation Agreement.

The Federation Agreement which is the main document embracing the Federation of Malaya Constitution establishes, under the protection of Great Britain, a Federation called the Federation of Malaya which consists of the nine Malay States and of the Settlements of Penang and Malacca. Power is reserved to His Majesty and to Their Highnesses the Rulers by mutual agreement from time to time to admit within the Federation any other territory.

Under the Federation Agreement, the Central Government of the Federation comprises a High Commissioner appointed by His Majesty, a Federal Executive Council to aid and advise the High Commissioner, and a Federal Legislative Council.

The Agreement records the desire of His Majesty and Their Highnesses that progress should be made towards eventual self-government, and as a first step to that end, His Majesty and Their Highnesses have agreed that as soon as circumstances will permit legislation will be introduced for the election of members to the several legislatures.

The High Commissioner.

In exercise of his executive authority the High Commissioner has the following special responsibilities :

- (a) the protection of the rights of any Malay State or any Settlement and of the rights, powers and dignity of Their Highnesses the Rulers ;
- (b) the prevention of any grave menace to the peace and tranquillity of the Federation or any Malay State or Settlement comprised therein ;
- (c) the safeguarding of the financial stability and credit of the Federal Government ;
- (d) the safeguarding of the special position of the Malays, and of the legitimate interests of other communities.

Federal Executive Authority.

The Executive authority of the Federation extends to matters with respect to which the Federal Legislative Council has power to pass laws, as defined in the Second Schedule to the Federation Agreement. This Federal Legislative list is extremely comprehensive. In certain cases laws made by the Federal Legislature may confer executive authority on the States and Settlements. The Federal Executive Authority is exercised by the High Commissioner either directly or through officers subordinate to him. He is empowered to delegate Federal Executive powers to the Government of any State with consent of the Ruler concerned, or to a Settlement Government.

Federal Executive Council.

The High Commissioner presides over the Executive Council, which consists of 3 *ex officio* members, not less than 4 official members and not less than 5 or more than 7 unofficial members, of whom not less than 2 in the former case and 3 in the latter case are Malays.

Federal Legislative Council.

The Council consists of a High Commissioner as President, 3 *ex officio* members, 11 State and Settlement members, 11 official members, and 50 unofficial members. The State and Settlement members (who have the same freedom as unofficials to speak and vote) consist of the 9 Presidents of the Councils of State in the States and one representative of the Settlement Council in each Settlement selected from among themselves by the members of

such Council. The 50 seats for the unofficial members are allotted as follows :

Labour	..	..	..	..	..	..	..	6
Planting (rubber and oil palms) :								
(a) Public companies	..	..	..	..	..	..	..	3
(b) Proprietary estates and small holdings	..	..	..	..	..	..	..	3
Mining	..	..	..	..	..	..	..	4
Commerce	..	..	..	..	..	..	..	6
Agricultural and husbandry	..	..	..	..	..	..	..	8
Professional, educational and cultural	..	..	..	..	..	..	..	4
Settlements	..	..	..	..	..	..	..	2
States	..	..	..	..	..	..	..	9
Eurasian community	..	..	..	..	..	..	..	1
Ceylonese community	..	..	..	..	..	..	..	1
Indian community	..	..	..	..	..	..	..	1
Chinese community	..	..	..	..	..	..	..	2

The official languages of the Legislative Council are English and Malay.

Powers of Legislative Council.

The powers of the Legislative Council to make laws for the Federation extend to the matters set out in the Second Schedule to the Federation Agreement and Bills passed by the Council require the assent of the High Commissioner and of the Rulers expressed by a Standing Committee consisting of two Rulers. If the High Commissioner considers that it is expedient in the interests of public order, public faith or good Government that any Bill introduced, or any motion proposed for discussion in the Legislative Council should have effect, and if the Council fails to pass the Bill or motion within such time and in such form as the High Commissioner may think reasonable and expedient, the High Commissioner has "reserved power" to give effect to the Bill or motion as if it had been passed by the Council.

The Rulers and the Conference of Rulers.

There is established under the Federation Agreement a Conference of Rulers consisting of all the Rulers of the Malay States. The Conference meets whenever necessary under the chairmanship of any one of the Rulers as may be selected at the Conference and meets the High Commissioner at least three times a year.

Except in cases of urgency the High Commissioner is required to send to each of the Rulers an advance copy of every Bill which it is intended to bring before the Legislative Council. Every new draft salary scheme for Federal Public Officers and every draft scheme for the creation or major reorganisation of a department of the Federal Government is also sent to Their Highnesses and may be discussed in the Conference of Rulers if desired.

It is the duty of the High Commissioner to explain to the Rulers the policy of the Federal Government on matters of importance to the Malay States and to ascertain the views of the Rulers. It is

also the particular duty of the High Commissioner to consult the Conference of Rulers from time to time upon the immigration policy of the Government and in particular when any major change in such a policy is contemplated by the Federal Government.

The Malay States.

There is in each Malay State a State Executive Council and a Council of State. The State Agreement provides for the promulgation of a written constitution for each State in conformity with the relevant parts of the Federation Agreement.

Executive Authority in the States.

Executive Authority in each State is exercised by the Ruler either directly or through State officers in his name. State Executive authority extends to all matters which are not included in the sphere of the Federal authority; and the Ruler in the exercise of his executive functions is aided and advised by the State Executive Council.

Council of State.

The Council of State may pass laws on any subject :

- (a) other than those in respect of which the Federal Legislative Council has power to pass laws ;
- (b) in respect of which the Federal Legislative Council has powers of legislation to the Council of State.

A Bill passed by a Council of State requires the assent of the Ruler of the State. Any law passed by a Council of State is void in so far as it is repugnant to a law passed by the Federal Legislative Council. The Councils of State are empowered to legislate on matters relating to the Muslim religion and the custom of the Malays. In each State's sphere of responsibility each Ruler possesses a reserved power similar to that of the High Commissioner referred to above.

The Settlements of Penang and Malacca.

The Federation Agreement incorporates the Settlements of Penang and Malacca into the Federation and provides that their administration shall be in such manner as His Majesty may from time to time prescribe by Order in Council. The Agreement provides for the Constitution of a Settlement Council in each of the two Settlements.

Financial.

Schedules attached to the Federation Agreement define the sources of revenue for the Federation Government, on the one hand, and for the State and Settlements Governments on the other, and the Heads of Expenditure for which the various authorities are responsible. Where expenditure to which States and Settlements are committed exceeds their own revenue, block grants are made from Federal revenues to enable State and Settlements to meet their approved expenditure. In addition to the expenditure budgeted for by States and Settlements a certain sum is granted each year for expenditure on unforeseen services. The amount varies according to the expenditure of the State and Settlement concerned.

CHAPTER III.

*THE ADMINISTRATIVE ORGANISATION OF
GOVERNMENT INCLUDING THE SYSTEM OF
LOCAL GOVERNMENT.*

The seat of the Federal Government is in Kuala Lumpur and it is here the High Commissioner resides and the Federal Legislative and Executive Councils meet. Kuala Lumpur is also the headquarters of the General Officer Commanding, Malaya District, which covers the Federation excluding the State of Johore, and of the majority of the Federal Departments of Government. During the Emergency the Advanced Headquarters of the Air Officer Commanding, Malaya, has been established here.

Under the Constitutional Agreement for the Federation of Malaya the executive authority in each Malay State is vested in the Ruler, whose Chief Executive Officer is the *Mentri Besar* or Chief Minister. There is a Council of State which has legislative powers in all matters not reserved for the Federal authority, and to aid and advise the Ruler in the exercise of his executive functions there is a State Executive Council. There is a British Adviser in each Malay State, whose duty it is to advise on all matters connected with the Government of the State other than matters relating to the Muslim religion and the custom of the Malays.

In the Settlements of Penang and Malacca the Chief Executive Officer is the Resident Commissioner. There is a Settlement Council with legislative powers similar to those exercised by the Councils of State in the Malay States.

The States and Settlements are divided into administrative districts in which the chief Government representative is usually the District Officer, a member of one of the Administrative Services who is responsible to the *Mentri Besar* or the Resident Commissioner for the general administration of the district. The smallest administrative units are the *mukims* into which each district is divided. These vary considerably in size in the various parts of the country and are in the charge of salaried headmen called *Penghulu* or *Penggawa*. The method of appointment of these Malay officials, upon whom the District Officer relies for keeping in touch with village affairs and with small holders in rural areas, also varies in the several States and Settlements, but in practice they are the acknowledged representatives of the local community in which they live, as well as being officers of the administration.

In each State or Settlement there are both officers of State or Settlement Departments such as the Medical and Health and the Education Departments, who are responsible to the *Mentri Besar* or the Resident Commissioner, and departmental officers of Federal Departments as for instance the Telecommunications Department, and the Postal Department, who are responsible to their head of department in Kuala Lumpur, but work closely with the *Mentri Besar* or the Resident Commissioner and District Officers in any matters of concern to the State or Settlement Administrations.

Many administrative and departmental officers in the higher grades of the services are Asians and it is the policy of the Government to promote the training of locally domiciled personnel to fill senior appointments. Much has been achieved in this direction since the war; but as the training of officers at Universities and Colleges, particularly for technical posts, takes several years the effective increase of local recruitment will not become apparent until about 1952.

Municipalities already exist in Georgetown, Penang, and the Town and Fort of Malacca and in Kuala Lumpur. These are administered by a President who is a senior officer of the Administrative Service. Municipal Commissioners in Penang and Malacca are nominated partly by the Resident Commissioner and partly by representative associations, and are appointed by the High Commissioner. In Kuala Lumpur representative associations are asked to submit names and the Municipal Commissioners are appointed by the Ruler in Council. The Municipal Commissioners impose rates and administer such matters as town planning, street lighting, town cleansing and conservancy, fire services, the licensing of theatres, lodging houses and certain trades.

Local matters in other town and village areas are controlled by Town Boards in the States and in the Settlements by Rural Boards under the chairmanship of the local administrative officer. These Boards are composed partly of local heads of such departments as Health, Public Works, Police and Social Welfare and partly of unofficial members representing the major interests in the town or rural area. These Boards perform duties similar to those of the Municipalities but do not enjoy the same degree of autonomy as the Municipalities.

There are in addition Licensing Boards in respect of the sale of intoxicating liquor and Drainage Boards in the coastal areas, composed of official and unofficial members, on lines similar to the Town Boards.

CHAPTER IV.

WEIGHTS AND MEASURES.

The standard measures recognised by the laws of the Federation of Malaya are as follows :

- (a) Standard of Length, the Imperial yard.
- (b) Standard of Weight, the Imperial pound.
- (c) Standard of Capacity, the Imperial gallon.

Among the Asiatic commercial and trading classes, Chinese steel-yards (called "liteng" and "daching") of various sizes are generally employed for weighing purposes.

The undermentioned are the principal local measures of weight and capacity used, with their relation to English standards :

The chupak	—	1 quart
The gantang	—	1 gallon
The tahl	—	1 $\frac{1}{3}$ ozs.
The kati (16 tahils) ..	—	1 $\frac{1}{3}$ lbs.
The picul (100 katis)	—	133 $\frac{1}{3}$ lbs.
The koyan (40 piculs)	—	5,333 $\frac{1}{3}$ lbs.

The more common local measures of length in use are :

2 jenkals	..	..	—	1 hasta
2 hastas	..	..	—	1 ela
2 elas	..	..	—	1 depa (1 fathom or 6')
4 square depas	..	..	—	1 square jemba (144 sq.')
400 square jembas	..	..	—	1 square orlong ($1\frac{1}{3}$ acres)

Other weights in common use are :

10 huns	..	..	—	1 chi
10 chi	..	..	—	1 tahlil ($1\frac{1}{3}$ ozs.)
1 bahara (3 piculs)	..	..	—	400 lbs.
1 kuncha	..	..	—	160 gantangs
1 nalih	..	..	—	16 gantangs
1 gantang padi	..	..	—	5 lbs. approximately
1 gantang rice (milled)	..	..	—	8 lbs. approximately
1 relong	..	..	—	.71 acres
1,000 square depas	..	..	—	1 acre

CHAPTER V.

NEWSPAPERS AND PERIODICALS.

The following is a list of newspapers and periodicals published in the Federation of Malaya :

NEWSPAPERS.

English.

Malay Mail (Kuala Lumpur)	Pinang Gazette and Straits
Malaya Tribune (Kuala Lumpur)	Chronicle (Penang)
Malaya Tribune (Ipoh)	Straits Echo and Times of
Malaya Tribune (Penang)	Malaya (Penang)

Malay.

Majlis (Kuala Lumpur)	Warta Negara (Penang)
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Chinese.

China Press (Kuala Lumpur)	Modern Daily News (Penang)
Kin Kwok Daily News (Ipoh)	Sin Pin Jih Pao (Penang)
Kwong Wah Yit Poh and Penang	

Tamil.

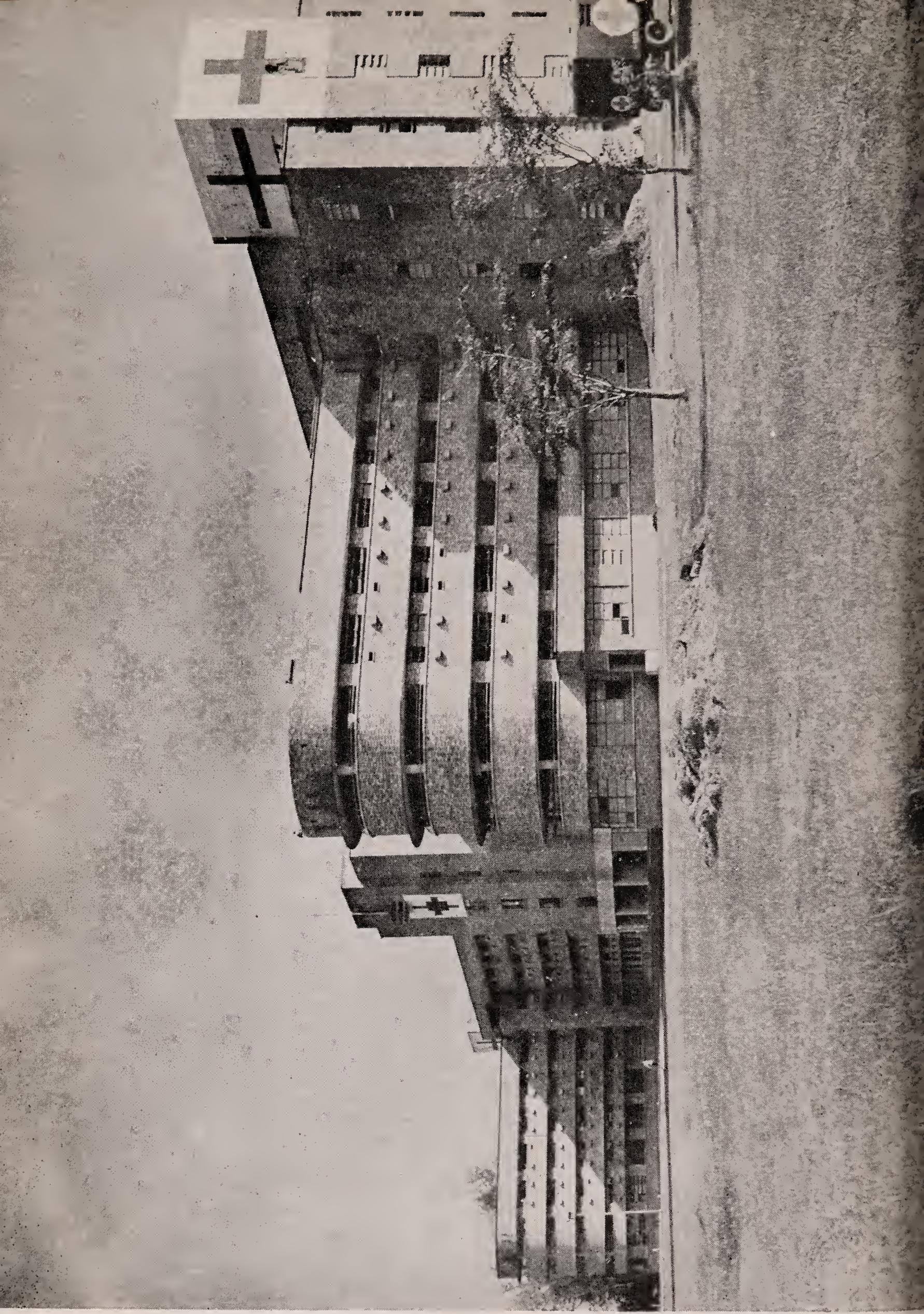
J a n a n a y a k a m (Kuala Lumpur)	Kalanjiyam (Penang)
Tamil Nesan (Kuala Lumpur)	Sevika (Penang)

Punjabi.

Pardesi Khalsa Sewak (Kuala Lumpur)



School children enjoying
their free issue of milk.



The Johore Bahru General
Hospital.

PERIODICALS.

*English.**WEEKLIES :*

Sunday Mail (Kuala Lumpur)
 Sunday Tribune (Kuala Lumpur, Ipoh and Penang)
 Sunday Gazette (Penang)

FORTNIGHTLIES :

Young Malaysians (Kuala Lumpur)

MONTHLIES :

Malayan Pictorial Observer (Kuala Lumpur)
 The Kris (Kuala Lumpur)
 Scouting (Kuala Lumpur)
 Planter (Kuala Lumpur)
 Malayan Police Magazine (Kuala Lumpur)

QUARTERLIES :

The Malayan Nature Journal (Kuala Lumpur)
 Dharma (Kuala Lumpur)
 The Malayan Agricultural Journal

*Malay.**WEEKLIES :*

Panduan Ra'ayat (Kuala Lumpur)
 Pengasoh (Kota Bahru, Kelantan)

MONTHLIES :

Mujallah Guru (Kuala Lumpur)
 Juita (Kuala Pilah)

Chinese.

Overseas Chinese Weekly (Kuala Lumpur)
 Park Look (Monthly) (Kuala Lumpur)

*Tamil.**WEEKLIES :*

Jananayakam (Sunday Edition—Kuala Lumpur)
 Janobahari (Kuala Lumpur)
 Tamil Nesan (Sunday Edition—Kuala Lumpur)
 Muyarchi (Penang)
 Kalanjiyam (Penang)

MONTHLIES :

Tamil Kodi (Malacca)

CHAPTER VI.

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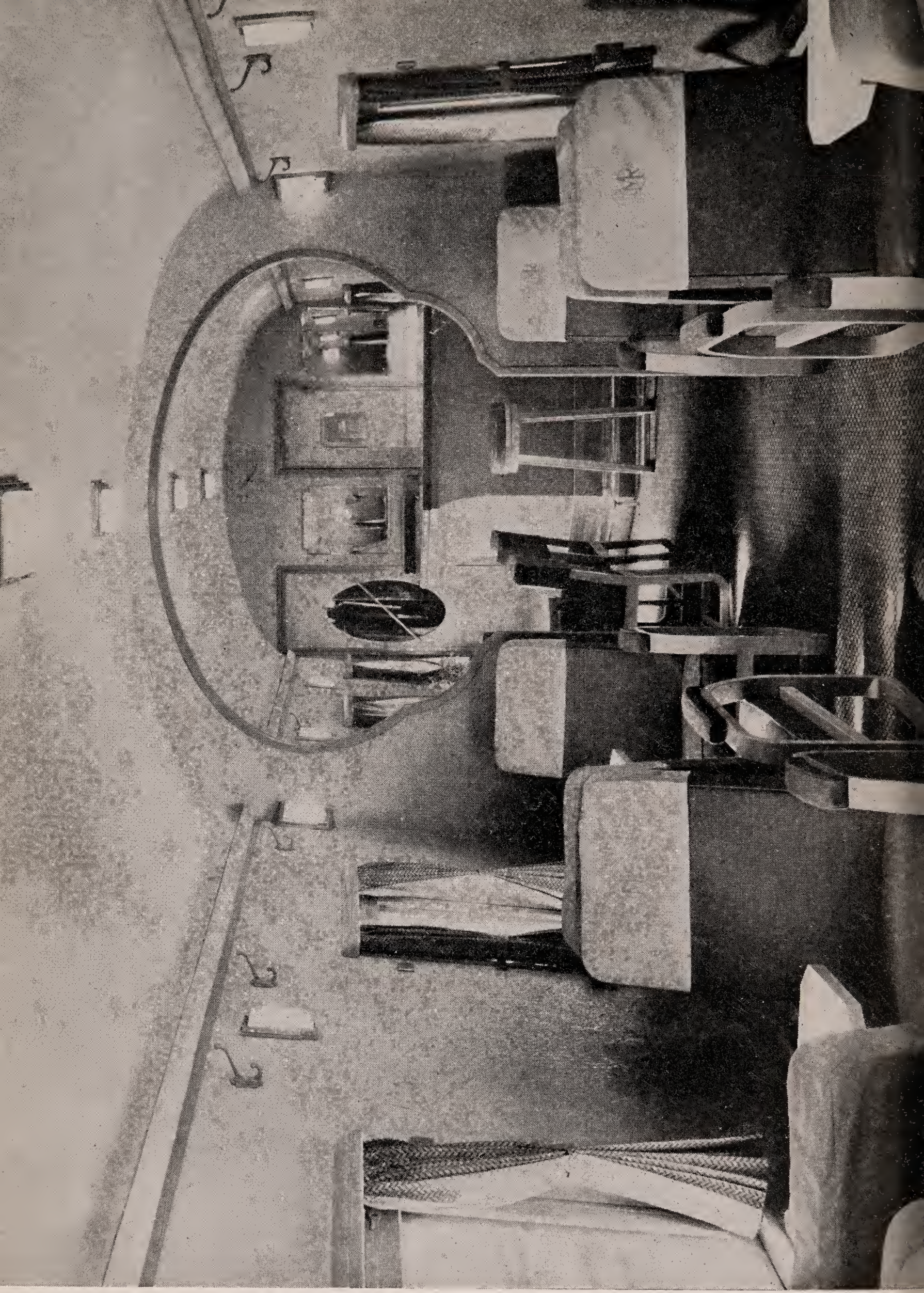
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**Miehle Automatic Printing
Machines at the Government
Printing Department.**



An air-conditioned Buffet
Car of the Malayan Railway.

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APPENDIX.

THE EMERGENCY.

By the beginning of 1949 the Security Forces, largely relieved of static defence duties by the Special Constabulary, were ready to return to the offensive. This offensive had an immediate effect on the number of weekly incidents caused by bandit activity. These dropped steadily during the first weeks of the year from the earlier average of over 50, and from the middle of February until the end of 1949 the number of weekly incidents averaged 26. The lowest number on record during the year was in the first week in August when only 12 incidents occurred. The nature of bandit attacks also changed and it was noticeable that they were reluctant to attack targets which were guarded or where they had not the element of surprise. As a result they failed completely in their expressed objectives of disrupting the administration and the economy of the country, and of establishing "liberated areas" over which they had full control. There was a tendency for the main bandit forces to retreat to bases deeper in the jungle where they could evade the offensive operations of the Security Forces. As a result, during the year the main incidents were carried out by small gangs operating either as killer squads or as part of the Min Yuen Organisation. It was the duty of this latter Organisation to arrange for the collection of food supplies and money from the local population, and for the dissemination of communist propaganda. Many of the incidents initiated by these gangs were comparatively trivial and included many cases involving only an exchange of shots with Police Posts at night. Attacks on a larger scale were generally confined to soft targets, and in this respect the number of ambushes, where the bandits were able to operate from prepared positions with clear escape routes, increased. One of the purposes of such ambushes was the need of the bandits to capture more arms and ammunition. A very great deal of credit for the failure of the bandits to establish "liberated areas" and to disrupt the economy of the country must, however, go to planters and miners, particularly those in isolated areas, who with great courage remained on their properties and while attending to their normal duties supervised their own defence.

The bandits announced during the year that on the 1st February their forces had been formed into the "Malayan Races Liberation Army". This was an attempt to disguise the movement as nationalist and to imply that it incorporated all races. To give further weight to this argument they also formed a so-called 10th Regiment of Malays in Pahang. During the latter part of the year this Regiment was particularly harried by the Security Forces, and, by the end of the year, had almost completely disintegrated. The movement continued, as it had begun, to be based almost entirely on an alien Chinese element.

In spite of their reluctance to engage the Security Forces in battle, which made contact under favourable conditions difficult to achieve, the Security Forces inflicted considerable casualties. Six hundred

and eighteen bandits were killed, 337 captured and 1,392 jungle camps were discovered and destroyed. One thousand three hundred and nineteen weapons were recovered, including automatics, rifles, pistols together with 842 grenades. In addition a considerable amount of ammunition of all types was seized, together with other equipment, documents and food supplies. These figures only include known and certain casualties and no estimate has been made of the number who may have been fatally wounded, nor of those who died of starvation and disease. At the end of the year it was estimated that the strength of the "regular" bandit forces was between three and four thousand.

During the first part of the year there was a steady trickle of surrendered bandits, and it was decided that surrender terms should be offered in the hopes that this number would be increased. Accordingly on the 6th September it was announced that bandits who surrendered would not be prosecuted on a charge carrying a mandatory death penalty provided they had not been guilty themselves of a violent crime. This announcement was given very wide publicity through the vernacular Press, and leaflets were distributed throughout the country, over one million being dropped from the air in known bad areas. Mainly as a result of this announcement the number of bandits who surrendered in the last quarter of the year considerably increased. The final figure at the end of the year was 216 of whom 116 surrendered after the announcement was made.

Casualties suffered by the Civilian population and by the Security Forces during the year were :

			Killed.		Wounded.		Missing.
Civilians	..	..	334	..	200	..	162
Police	..	..	164	..	170	..	—
Military	..	..	65	..	77	..	—

The high Civilian casualty figures when compared with those of the Security Forces clearly indicate the purely terrorist nature of the bandit campaign.

The expansion and reorganisation of the Police Force continued throughout the year, and at the end of the year the strength of the Force, including about 3,500 "Extra Police Constables", but excluding the 30,000 Special Constables, was 17,871 all ranks as compared with 15,461 on the 1st January. Four thousand two hundred and thirty-five recruits for the Regular Force passed through Police Depots during the year, and as the number of rank and file approached the approved establishment figure of 14,522, it became possible to close the temporary Depots at Johore Bahru in June, 1949, and at Tanjong Rambutan in August, 1949, and to extend the training period from five to eight months. The Force transport fleet was also increased, and at the end of the year was composed of 1,410 vehicles of all types. The Police wireless communication system was extended and experiments with various types of mobile sets for jungle use were carried out.

A considerable building programme was undertaken during the year and 81 new Police Stations were opened, including 12 Police Posts for the Frontier Force. Many other buildings were either converted or extended.

To deal with particularly difficult conditions on the Northern Frontier a Frontier Force was established under the Police and at the end of the year was composed of 596 all ranks. The personnel were on special terms of service designed to cover the requirements of this branch of Police work and to attract men with local knowledge of the frontier areas. The duties of the Force included Anti-bandit patrols, the prevention of arms smuggling, illegal immigration, and general control of the population living in the frontier zones. The Force operated under the command of the three Chief Police Officers concerned.

In September, 1949, an agreement was concluded between the Governments of Thailand and the Federation providing reciprocal arrangements for the Police of the respective territories to cross the frontier in pursuit of terrorists up to points in Thailand or Malaya specified in the agreement. According to the terms of the agreement Malayan Police crossing into Thai territory must be accompanied by a Thai Police Officer(s) and vice versa. To facilitate this arrangement a detachment of Thai Police was stationed in Kedah, the members of which were attached to Malayan Police patrols on the frontier.

The agreement is working satisfactorily and has produced a greater measure of co-operation between the two Police Forces.

The strength of the Special Constabulary at the beginning of the year was 28,719. By the middle of the year it had risen to 32,000 and every effort was made during the remainder of the year to reduce this figure to the minimum compatible with security. The figure at the end of the year was 29,984.

The strength of European Sergeants was reduced during the year from 495 to 442 by casualties, resignations, discharges and transfers. As the standard of proficiency of the Special Constables improved it was found possible to reduce the number of European Sergeants employed on estates and mines and to use some 70 of them as leaders of jungle squads in which role they have been of great value. To facilitate the administration of this large force which was widely scattered throughout the Federation, arrangements were made for 745 planters, miners and others to be given honorary rank in the Auxiliary Police.

In order to maintain the pressure on bandit gangs which took refuge deeper in the jungle it became necessary to establish Police Jungle Squads and by the end of the year 230 squads were in operation. These squads were composed of men of all races and were not confined to members of the Regular Force. Many suitable Extra Police Constables and Special Constables were incorporated in them.

The Auxiliary Police and Kampong Guards continued to play their part in the Emergency during the year; the former were employed mainly in the towns, while Kampong Guard Posts were established in the villages and armed with shotguns for local defence.

The Armed Forces continued to give effective and generous support throughout the year in aid of the civil power. The Army was fully employed and despite requirements of rest and retraining only two Units—the 2/2 Gurkha Rifles and the 2nd Battalion Scots

Guards—were withdrawn from operations during the year and then only for a short period. On the 17th July the 3rd Battalion Grenadier Guards left for the United Kingdom, its place being taken by the 1st Battalion of the Suffolk Regiment from Greece. On the 25th August the 1st Battalion Inniskilling Fusiliers also left for the United Kingdom being relieved by the 1st Battalion of the Green Howards who arrived on the 15th September and commenced operations in Pahang. On the 1st of November H.Q. Singapore District ceased to be responsible for operations in Johore which reverted to the command of H.Q. Malaya District, Kuala Lumpur. Johore sub-District was thereupon dissolved and the Central Malaya sub-District was renamed South Malaya sub-District, to include Johore as well as Negri Sembilan and Malacca in its sphere of operations. At the same time 48 Gurkha Infantry Brigade was formed from existing units, and took over from the 2nd Guards Brigade the direction of operations in Pahang. Throughout the year units steadily improved their technique in jungle warfare and carried out many operations in remote and inaccessible parts of the country.

On the 23rd February the newly raised 3rd Battalion of the Malay Regiment became available for operations and was stationed in Kelantan under the command of H.Q. North Malaya sub-District. The 4th Battalion was raised during the year and was formed on the 22nd November, 1949, after one of the largest passing out parades of recruits seen at Port Dickson. The 1st and 2nd Battalions were on active operations for the greater part of the year. On the 11th July, 1949, the first Malay Infantry Brigade Headquarters was opened at Port Dickson and assumed administrative command of all Battalions of the Regiment and of the Depot. A Brigade Signal Squadron was also formed and a specialist recruit company was formed at the Depot to provide drivers, signallers and tradesmen of all types. During the year 1,798 Malays were recruited into the Regiment.

The Royal Air Force continued to play its important role in the campaign and was able to meet all high priority demands for air strikes and air supply by the Security Forces. Spitfires and Tempests operated from Kuala Lumpur Airfield, while other aircraft, including Beaufighters and Sunderlands operated from other bases. By the end of 1949 over 300 air strikes had been carried out against bandit camps and concentrations, and it is known that a number of casualties were caused. The general accuracy of these strikes was excellent and reflected great credit on the air crews in locating and attacking targets which were often invisible being hidden 200 ft. below the tops of trees. Royal Air Force Dakotas, renowned for their excellent work during the war, were used to drop hundreds of tons of supplies to troops and Police operating in the jungle. In nearly all cases the dropping zones were small, often not being more than 50 yards by 30 yards in area. It required great skill on the part of the crews, not only to find these, under difficult weather conditions, but also to put the supplies down so that they could be recovered by the ground forces. Other tasks carried out by the Royal Air Force included photographic and visual reconnaissance

and communication flights, which was a most necessary task due to the lack of good road and rail communications in many areas of the Federation.

Coastal patrols were operated continuously by the Royal Navy assisted by launches of the Police Marine Branch and aircraft of the Royal Air Force. A very large number of vessels of the junk type, and smaller, were searched and their crews interrogated. Doubtful cases were turned over to the civil authorities, but the number of illegal immigrants discovered was insignificant and no evidence of arms smuggling was found. In general, the negative nature of reports from the coast watching organisation supports the view that these patrols remained an effective deterrent to illegal traffic by sea.

The Civil Liaison Corps, composed of Europeans and Chinese with local knowledge, continued to provide small units which were attached to the Army to facilitate contacts with the local population. Dayaks, specially recruited from Sarawak, were also included in these units and were of particular value to British troops engaged on jungle patrols.

Late in 1948 the local Defence Committee approved the re-establishment of Volunteer Forces in the Federation, and proposals to implement this decision were therefore examined in consultation with local Naval, Military and Air authorities. Legislation was prepared during the year to authorise the raising of the Malayan Royal Naval Volunteer Reserve, a Federal Unit of the Sea Cadet Corps, a Federation wing of the Malayan Auxiliary Air Force and a Federation wing of an Air Training Corps. It was also decided to re-establish the Volunteer Land Forces, but on a different footing to the pre-war Volunteer Forces owing to a radical change in their envisaged role in either an Emergency or War. It was decided that the Units proposed should in general be Auxiliary to Regular Military Units in Malaya.

The Department of Public Relations was primarily concerned with the dissemination of information relating to modifications of Government policy and action as a direct result of the Emergency. The Department was also responsible for the production and dissemination of a considerable volume of material relating to Psychological Warfare, and was engaged in propaganda activities in support of Security Force operations, activities which must be regarded as outside the normal functions of a Civil Government Information Service.

The Malayan Press continued to provide the major medium for the dissemination of information, particularly in the urban areas. Regular Press Conferences were held throughout the year by the Federal Government, at which questions concerning the Emergency were answered and a regular review of the situation given by the Chief Secretary, the Commissioner of Police and the Services' representatives. There is no Press censorship in Malaya.

The diversities of language in the plural society of Malaya allied to the fact that the majority of the population live in isolated villages and on estates and mines, in riverine kampongs and in rural areas, necessitated the planning and production of simple leaflets

in vernacular languages which could be readily disseminated by aircraft, police patrols, mobile public—address units and other agencies. Fifty million leaflets, many of them pictorial, co-ordinated to a basic plan, and varying from news and explanations of the many Emergency Regulations to psychological warfare and anti-Communist material, were prepared and distributed during the year. Simple vernacular papers in Malay and Tamil were prepared and distributed in rural areas and to labour forces on estates to a total of $3\frac{3}{4}$ million during the year. Many estates and mines co-operated by assisting in the distribution of leaflets and news-sheets to their labour forces.

Mobile Public Address Units continued to prove of very considerable value in reaching the rural population amongst whom adult literacy is low. The duties of Field Officers of these Units were arduous and dangerous. These included addressing in vernacular languages large audiences, drawn by the attraction of a film show and assembled at night on village padangs, on such subjects as Communist terrorism and banditry, the measures taken by Government to combat them and the necessity for information and assistance to the Security Forces. Some 200,000 people were addressed in their own languages by the Asian staff of these Units during each month of the year.

Ample evidence was available in captured Communist documents that these activities were the cause of considerable concern to the bandits and to Communist propagandists. The output of the latter continued on a considerable scale during the year mainly through crudely mimeographed pamphlets. The contents of these varied from the abstractions of Marxist-Leninist theory to crude threats of murder and demands for extortion money.

The Emergency continued to mean a large amount of extra work for other Government Departments, many of which were operating with depleted staffs. The Public Works Department was heavily engaged in the erection of Detention Camps, new Police Posts and other Police accommodation, buildings and barracks for the Malay Regiment, etc. Similarly, the Telecommunications Department continued to provide and maintain new services to outlying districts and gave considerable assistance to the Police in organising a network of telephone, teleprinter and radio communications, in addition to assisting in the training of W.T. operators and the maintenance of equipment. The Survey Department was frequently called upon to supply maps, and, when they could not be printed commercially, leaflets such as that containing the surrender announcement.

It was estimated that the Emergency continued to cost the Federation Government over \$250,000 a day. His Majesty's Government, in addition to bearing the cost of the Armed Forces in operation, made a financial contribution to the cost of the Emergency of £5,000,000. The Singapore Government also made an offer of £500,000, a contribution which was gratefully accepted.

During the year the Emergency Regulations were developed still further in accordance with the general situation and the necessity for legal authority to deal with the various problems which arose.



**A Kampong Guard at Kampong
Api-Api on sentry duty.**



Kampong Guards at Kampong
Tenang, Segamat "stand to"
at their post.

The following were the principal amendments and additions to the Regulations :

Power to order the detention of residents or portion thereof in any village, area or district where the High Commissioner is satisfied that they have aided, abetted or consorted with the bandits, suppressed evidence relating to the unlawful possession of arms, persistently failed to give information to the Police concerning bandits or persistently failed to take steps to prevent their escape. (Emergency Regulation 17D).

Power to prohibit in the public interest the manufacture, sale, use, display or possession of any uniform, flag, emblem, etc. (Emergency Regulation 6B).

Power to deal with the offence of carrying a firearm while drunk or disorderly. (Emergency Regulation 4A).

Power to police officers to use all force necessary including the use of lethal weapons to arrest persons reasonably suspected of carrying firearms or ammunition or of consorting with such persons. (Emergency Regulation 27A).

A period of detention under the original Emergency Regulations was extended from one to two years. [Emergency Regulation 17 (1).]

Power to evict persons unlawfully occupying land. (Emergency Regulation 17E).

Power to restrict the residence and movement of any person where the Menteri Besar or Resident Commissioner as the case may be considers it to be in the public interest to order such restriction. (Emergency Regulation 17F).

Regulation 5 makes it an offence punishable by death or penal servitude for life and whipping to consort with a person unlawfully carrying arms and ammunition in circumstances which raise a reasonable presumption that the person so consorting had acted or intended to act with the other in a manner prejudicial to the public safety. This has now been amended by the addition of a subsection which makes it an offence punishable with ten years' imprisonment to consort with any person in circumstances which raise a reasonable presumption that the person so consorting knew that the person with whom he was consorting was unlawfully carrying or in possession of arms or ammunition. [Emergency Regulation 5 (1A).]

Other Important Regulations made under the Ordinance have been passed and they are as follows :

The Emergency (Civilian Injuries Compensation) Regulations, 1949 ;

The Emergency (Travel Restriction) Regulations, 1948 (in force on 1st February, 1949) ;

The Emergency (Police Force Foreign Service) Regulations, 1949 ;

The Emergency (Rubber Control) Regulations, 1949 ;

The Emergency (Injury Allowances) Regulations, 1949 ;

The Emergency (Registration of Labour) Regulations, 1949 ;

The Emergency (Alien Ordinance Extended Application) Regulations, 1949 ;

The Emergency (Passengers Restriction Ordinance Extended Application) Regulations, 1949.

At the end of 1948 there were 1,779 persons detained in custody under Emergency Regulation 17. As more information reached the Security Forces further arrests were made and it was necessary to provide more accommodation for detained persons. At the end of 1948 detention camps had been established at Pulau Jerejak (Penang), Tanjong Bruas (near Malacca) and Majedie (near Johore Bahru) with accommodation for a total of 6,000 persons and a camp was under construction at Kluang to accommodate a further 1,500 persons. The Kluang camp was opened on 17th January. A transit camp for persons repatriated under Emergency Regulation 17c was opened at Port Swettenham on 1st March and a further camp at Ipoh with accommodation for 4,000 persons was opened on 1st June. From time to time with the agreement of the Singapore Government, detained persons were accommodated in a camp on St. John's Island, off Singapore Harbour.

During the year 6,374 persons were repatriated under Emergency Regulation 17c, of whom 6,149 were repatriated to China and 225 to India. In addition 2,913 dependents of Chinese repatriates and 235 dependents of Indian repatriates accompanied the repatriates to China and India respectively. In China the Communist Armies advanced southwards and successively occupied the ports of South-China. Ships from Malaya ceased to call at ports occupied by the Communist forces and, after the occupation of Swatow and Canton in October, no port on the mainland of China proper was available for the disembarkation of Chinese repatriates from Malaya. Hoihow on the island of Hainan remained in the hands of the Chinese Nationalist Government throughout the year but subsequently to October only natives of Hainan were permitted to land there. The effect of the cessation of repatriation to China was to increase the pressure on accommodation in Detention Camps. At the end of 1949 there was no alternative to the continued detention of Chinese persons whose conduct had been such that they could not be released or selected for admission to the rehabilitation centre mentioned later. The number of persons in detention under Emergency Regulation 17 at the end of 1949 was 5,362 with an additional 213 dependents mostly young children.

It had been apparent in the earliest days of the Emergency that a major factor operating to assist the armed terrorists was the existence of squatters in areas bordering on the jungle. These unlawful occupants of land were under no effective administration and many of the areas they occupied were difficult of access. The direct or indirect support which the armed terrorists received or exacted from these squatter communities was nullifying much of the efforts of the Security Forces. In January Emergency Regulation 17D was introduced, and between January and October a total of sixteen operations were conducted in various localities resulting in the detention of 6,343 persons. These measures were essential to deprive the terrorists of large bodies of voluntary or involuntary supporters, but were none the less distasteful in that there were

seldom specific grounds of detention against the individual members of the communities so detained. Also, although compensation was paid for movable property and livestock which could not be taken into detention with the squatters, the operations involved deprivation without notice of their homesteads (albeit on unlawfully occupied land) and of any immediate means of livelihood.

One thousand two hundred and twenty-six of the persons detained under Emergency Regulation 17D had been released by the end of the year to live in places where they would not be subject to threats by terrorists. It was also provided that persons other than Federal citizens and British subjects detained in custody under Emergency Regulation 17D could be ordered by the High Commissioner in Council to leave and remain out of the Federation. Seven hundred and forty of the persons detained under the Regulation were repatriated to China.

Less drastic measures to deal with the squatter problem were authorised by Emergency Regulation 17E and 17F promulgated in May and October respectively. The two regulations jointly made it possible for the State and Settlement authorities to resettle and regroup squatter communities in compact areas which could be satisfactorily policed and administered. At the end of the year resettlement areas were opened or planned in a number of States and it was hoped that more squatters detained under Emergency Regulation 17D would soon be able to be released to become law-abiding and self-supporting cultivators in the resettlement areas.

It was felt that a number of persons detained under the Emergency Regulations had been more the victims of unfavourable circumstances than incorrigible enemies of law and order. The lack of normal educational facilities during the Japanese occupation of 1942-45 and the attempts of the Communist leaders to associate their aims with legitimate aspirations such as nationalism and self-government resulted in many persons of an impressionable age or with inadequate educational and social backgrounds being deceived into acceptance of Communist slogans. Means of re-educating such persons to enable them to resume their places in a free and democratic society were considered during the year and on 27th December, 1949, the Taiping Rehabilitation Centre was opened. Chinese persons in detention are to be carefully selected for admission to the Rehabilitation Centre where, while still in custody, vocational and other training will be given in the hopes that they may eventually be unconditionally released as free members of society. Plans were also being considered at the end of the year for a similar Rehabilitation Centre near Klang for detained Malays.

The increase in the numbers of persons detained by the Security Forces led to modifications in the machinery for hearing and considering objections which persons detained under Emergency Regulation 17 have a right to make. The former Advisory Committees were replaced by Committees of Review which may give orders of continued detention or of release, on bond or otherwise, after considering the objections and all available information about the person detained. Committees of Review may also refer doubtful or difficult cases to the Review Commission. Although there were 15 Committees of Review hearing objections at various places

throughout the country, there were arrears of cases outstanding at the end of the year at one or two centres.

The Emergency continued to press most heavily on the Chinese. Many of them were victims of bandit attacks and more were put in fear of their lives. Those living in the rural areas were periodically dominated by the bandits and in a number of places it was unfortunately found necessary as has already been described, to remove entire groups into detention camps because of the assistance they had given, often involuntarily, to the bandits. In spite of this the Chinese community during the year began to recover from the stupor into which the sudden Communist attack had originally plunged them. Their leaders, especially the Federal Councillors, early perceived that the Emergency was not only endangering many Chinese lives, but was also tending to cause doubts in many peoples' minds as to the genuineness of Chinese loyalty to Malaya. These doubts arose from the fact that most of the bandits were Chinese whom the rest of the Chinese community were unable to resist owing to lack of protection. There was in consequence a movement at the end of 1948 to organise the Chinese community to protect its own interests in the country, and this resulted in the foundation of the Malayan Chinese Association in February, 1949. The Association included in its objects the preservation of good intercommunal relations and support for Government in its efforts to maintain law and order. The response was immediate, especially among the non-English speaking Chinese, and by the end of the year there were over 100,000 members with branches in all States and in most districts. The genuineness of the Association as an anti-bandit movement was amply demonstrated by the continuous and brutal attacks aimed against its leaders, which included the hurling of a hand grenade against the President at Ipoh in April.

The first activities of the M.C.A. were intended to alleviate the hardships inevitably borne by the Chinese community in a campaign which was largely fought against Chinese bandits living in Chinese populated but often unprotected areas. The cause of the squatters at once became the cause of the M.C.A. which offered financial assistance for their resettlement as soon as action was taken on the recommendations of the Squatter Committee which met under the Chairmanship of the Chief Secretary in February. Unfortunately, with the exception of Johore, funds were not forthcoming on a sufficient scale, and at the end of the year plans were under way to hold a lottery. In pursuance of its policy of promoting Chinese interests during the critical period of the Emergency, the Association leaders urged local Chinese to become Federal Citizens and themselves played their part in the deliberations of the Communities Liaison Committee. The prospect of Communist control of China and the likelihood that the new masters of China would soon turn their attention to the Overseas Chinese made it essential that the Chinese should strengthen both their ties with their country of adoption and their own unity as an integral section of the Malayan population. In retrospect the earnest efforts of Chinese leaders to remove any doubts about the loyalty of the great majority of local Chinese to Malaya may be considered the most important development in Chinese affairs during 1949.



Security Forces on the march along a jungle track.



Members of the Malayan Frontier Force meet the Thai Police at the Perlis-Thai boundary after a routine patrol.

Government strengthened its formal ties with the Chinese community by encouraging the establishment of Chinese Advisory Boards in most States and Settlements, and a special Emergency Chinese Advisory Committee was appointed under the Chairmanship of the Secretary for Chinese Affairs to whose meetings representatives of the Defence Secretariat and Police were invited.

Security Committees met at regular intervals during the year in most of the States and Settlements to discuss and resolve problems arising out of the Emergency which affected areas under their jurisdiction. A Federal Internal Security Committee, covering problems of general application also met at regular intervals in Kuala Lumpur. These Committees were comprised of unofficials and representatives from the Civil Government, the Police and the Services, and afforded an opportunity for close liaison between all those concerned with Emergency problems.

An interesting indication of the extent to which the Communists had previously controlled the trade unions and labour in the country was given by the figures for man days lost during 1949, when compared with previous years, as a result of labour disputes. In 1947 the total man days lost were 696,036, in 1948 370,464, nearly all of which were in the period at the beginning of that year before the Emergency started in June, and in 1949 only 5,390.

It will be evident from this account that throughout the year the main emphasis in dealing with the Emergency was on the efforts of the Security Forces. But at the end of the year the bandit forces, while they had been considerably harried and had suffered severe casualties, were still in a position to maintain their attacks at the same level and even to intensify them in certain areas, where due to the need for rest and retraining Security Force pressure could not be steadily maintained. Increasing attention was however being paid to the equally important administrative and political measures already mentioned, designed to improve Government's administrative control over rural areas and to encourage full public co-operation with the Security Forces. The need for these became more apparent towards the end of the year when Communist successes in China provided a filip to bandit morale and at the same time gave serious food for thought to the Chinese community. It was realised that the bandits would take full advantage of this, and plans were therefore prepared for the early months of 1950 to enable the public to meet this challenge.



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